AMERICAN BUILDER

THE WORLD'S GREATEST BUILDING PAPER

OCTOBER 1958 SEVENTY-FIVE CENTS

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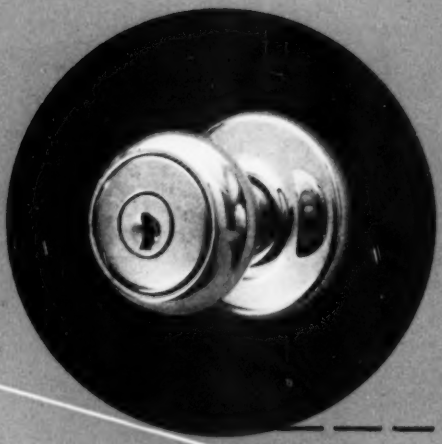

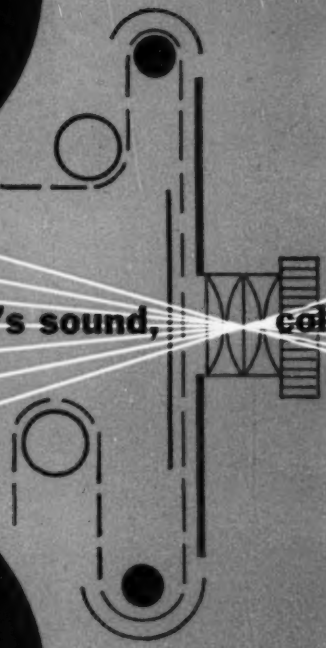

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how a lock is made
"Locking Up" shows how a modern cylindrical lock is manufactured.

keying procedures
"Securely Yours" illustrates all phases of keying procedures from maisoning to master-keying.

powder metallurgy
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Kwikset will gladly arrange to show these sound, color films to your organization at no cost.

Write: Room 201, Kwikset Sales & Service Co., 516 East Santa Ana Street, Anaheim, California

Produced by Audience Tested Productions, Los Angeles, California

"INSTALLATION LABOR CUT TO 10 MINUTES PER WINDOW UNIT"

. . . read what Builder R. E. Romine says about Fenestra* Ready-trimmed Steel Window Units:

R. E. ROMINE, Builder

441 DICKENS TErryhill 3-2660 KIRKWOOD 22, MO.

May 1, 1952

look how easy it goes in!

Detroit Steel Products Co.
4501 North Broadway
St. Louis 7, Missouri

Attention: Mr. J. E. McIlvaine

Gentlemen:

I believe your Fenestra steel casement windows set in the inside-outside steel trim fit into my building program both as to cost and design. For these reasons I have ordered them for the houses I am starting in my new subdivision to be known as Romine Acres.

In the residences I am now completing the installation labor has run between 10 and 20 man minutes per unit depending on the size of the window used. This is a substantial labor saving over the combined costs of setting and trimming other type windows.

The two and three light high units used as strip windows permit me to furnish a lot more wall space and at the same time provide more than adequate light and ventilation.

In my opinion your Fenestra Package Unit blends into the design of the modern medium priced home and greatly simplifies the builders' window problems.

Yours very truly,

R. E. Romine

R. E. Romine

you get sash, frame, hardware, inside trim, outside trim... all in one package

goes in rough opening... just nail to sheathing outside and to studding inside, no trimming!

amen!

See your Fenestra Representative for types and sizes (also check on Fenestra Hot-Dip Galvanized Windows, Metal Screens and Storm Sash, Basement and Utility Windows) or write to:

*®

Detroit Steel Products Company, Dept. AB-10, 2260 East Grand Blvd., Detroit 11, Michigan.

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The KELVINATOR 30-INCH RANGE with "GREAT SCOT" Oven!

Your answer to space problems in homes and apartments

(Model ER-352 Illustrated)

Small kitchens have always meant small ranges with small ovens. Housewives, however, prefer ranges with large ovens. But you have just so much space to work with. Besides, you have costs to think of.

The new Kelvinator 30-inch range—with its "Great Scot" Oven—was designed to give a *big range performance at a small range price!* Women can cook a complete Thanksgiving dinner in it *automatically* . . . including a 22-lb. turkey at one time! And this range has every modern deluxe feature for the one low price!

- **Space Saving Dimensions** . . . only 30 inches wide!
- **Giant Oven**—full 23 inches wide!
- **New Exclusive "Heat Lock"** oven door! Keeps heat inside oven!
- **Fast Oven Pre-Heat.** Pre-heats to 350° in less than 5 minutes with automatic cut-off.
- **4 High-Speed Surface Units,** with 7 controlled heats for greater cooking flexibility, for more economical performance!
- **Automatic Oven Timer**—built right into this beautiful streamlined range.
- **Full-Width Storage Drawer.**
- **Handy Appliance Outlet.**
- **Concealed Oven Vent.** Excess cooking vapors vented through rear surface unit to prevent staining.
- **Superior** porcelain enamel: Outside front, top and sides are white titanium porcelain enamel, acid- and chip-resistant.

Highest Underwriters' Laboratories installation rating.

THERE IS A BETTER ELECTRIC RANGE FOR BUILDERS . . .

IT'S **Kelvinator**

Division of Nash-Kelvinator Corporation, Detroit 32, Michigan

REFRIGERATORS, RANGES, HOME FREEZERS, WATER HEATERS, DEHUMIDIFIERS . . . *Electric, of course!*

AMERICAN BUILDER

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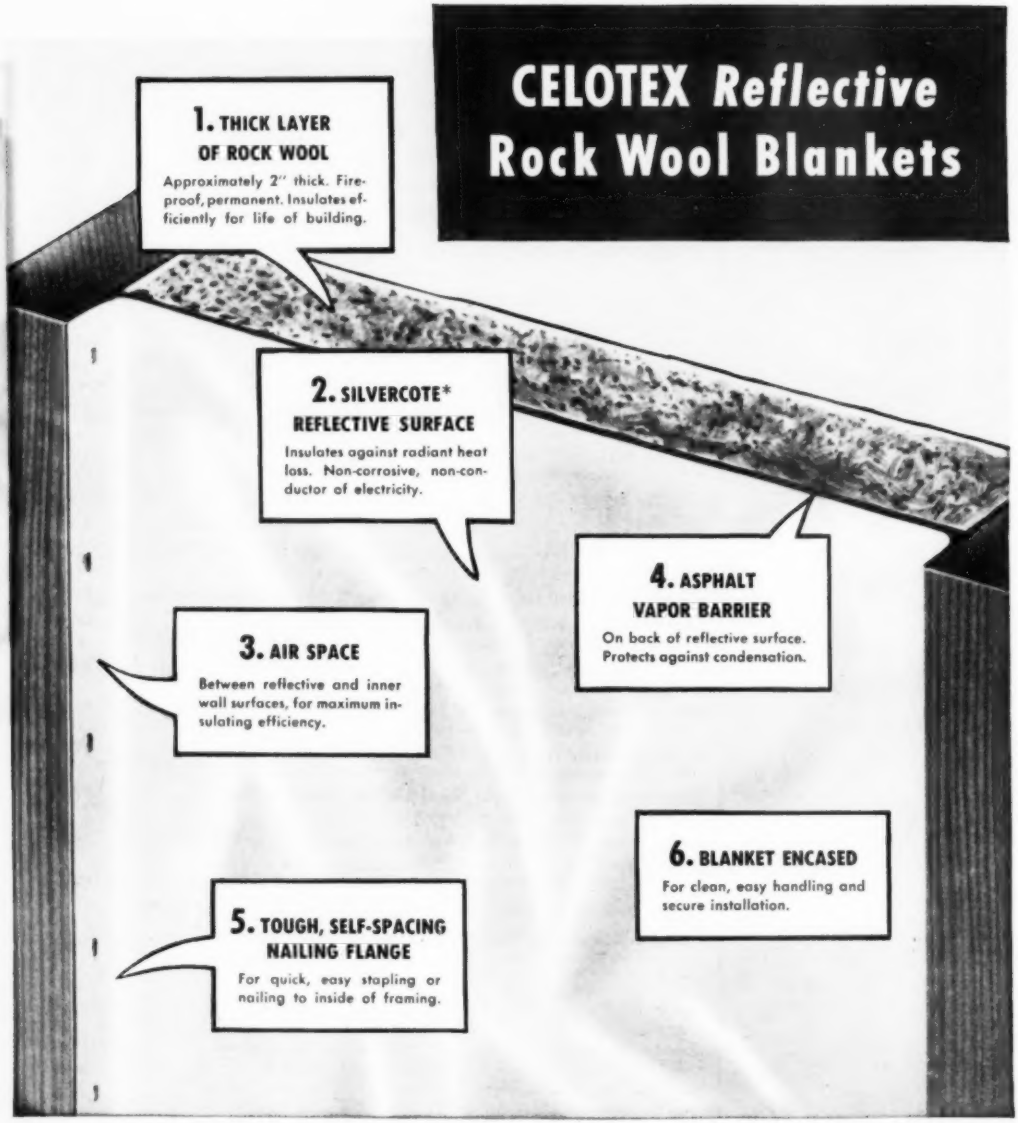
NOW! To help keep

Great 2-in-1 insulation

CELOTEX *Reflective* Rock Wool Blankets



costs in line...

"buy" for new homes!

1 Check both conductive and radiant heat

2 Add big sales-appeal at little cost

Now—at low cost—build into your homes *double protection* against costly heat loss in winter, uncomfortable heat penetration in summer!

Celotex *Reflective* Rock Wool Blankets give you approximately 2 inches of permanent, fireproof rock wool—PLUS a non-corrosive, Silvercote* reflective facing. Insulate against both conductive and radiant heat! Provide more insulation per dollar!

For example, a standard frame wall insulated with Celotex *Reflective* Rock Wool Blankets has an *insulating value approximately equal to the same wall with regular,* FULL-THICK *rock wool blankets!*

Celotex *Reflective* Rock Wool Blankets are clean and easy to handle, go up fast. Minimum cutting and fitting required. Handy 8-foot lengths provide continuous vapor barrier from ceiling to floor. Also available in 2-foot lengths.

Inspect them today at your Celotex dealer's, or write for full details. The Celotex Corporation, Dept. AB-102 120 S. LaSalle St., Chicago 3, Ill.

*REG. U. S. PAT. OFF.

New, exclusive package stops end-crushing

As you can see in this diagram, Celotex Reflective Rock Wool Blankets are folded at both ends. This means a more compact, more rigid package—safer protection—no more crushed ends.

Celotex National Advertising Puts the Spotlight on YOU!

"See your builder!" Today, as in years past, that's what Celotex is telling prospective home owners—in big, colorful, hard-hitting ads in THE SATURDAY EVENING POST—BETTER HOMES & GARDENS—AMERICAN HOME—SMALL HOMES GUIDE.

These impressive Celotex ads are designed to build business for *you.* Tie in with them by emphasizing to every prospect that your homes are built with *genuine* Celotex Products.

This makes your selling job easier. Because over a quarter century of national advertising leadership has created unsurpassed *public acceptance* for the brand name Celotex!

NOTE: Distribution of Celotex Reflective Rock Wool Blankets is being expanded as rapidly as conditions permit. If not already available in your area, they will be. Write for full data.

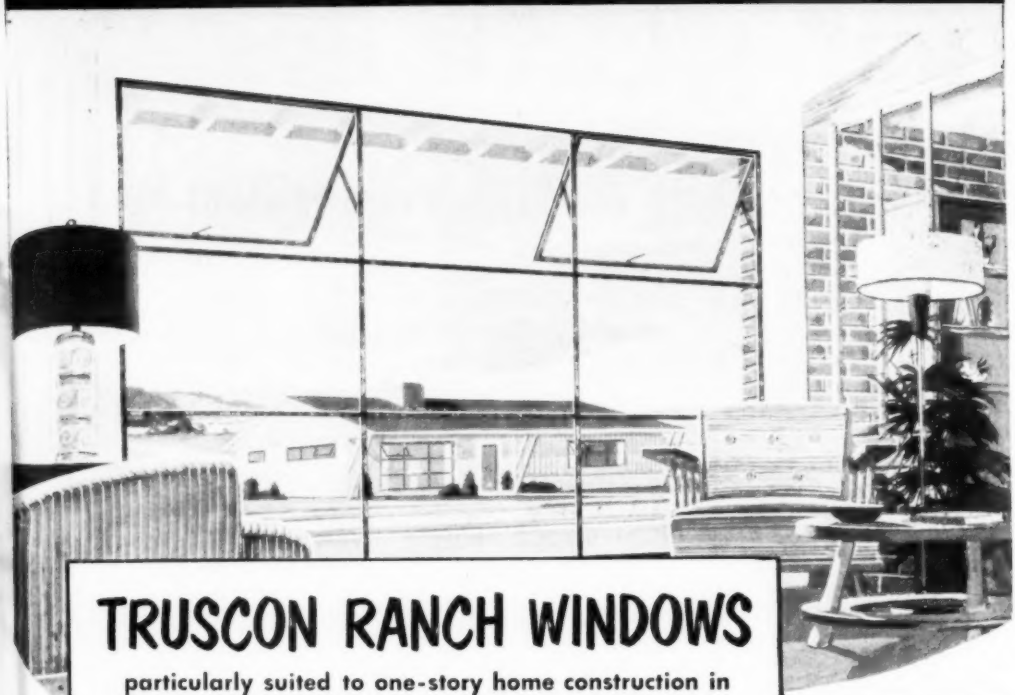
Build Better...Build with Genuine

CELOTEX BUILDING PRODUCTS

REG. U. S. PAT. OFF.

THE CELOTEX CORPORATION, 120 S. LA SALLE STREET • CHICAGO 3, ILLINOIS

here's a new product for you



TRUSCON RANCH WINDOWS

particularly suited to one-story home construction in the widely-popular ranch house architectural style...

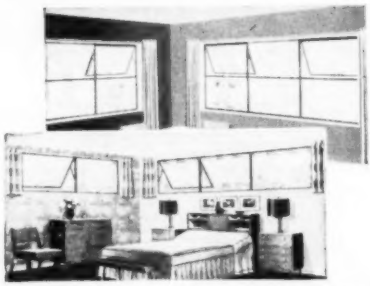
The Truscon Ranch Window offers new and attractive features not only for the favorite ranch-home design but also for enhancement of any residential unit following the modern trend.

Special Features The Ranch Window in the larger sizes provides an attractive living-room picture window which, when viewed from the outside, tends to minimize the "wide open" effect characteristic of a large undivided glass area. The medium size units fit very conveniently into window openings for dining rooms, dens and libraries. In the smaller units, the windows are admirably suited for sleeping rooms.

Sturdy Design and Welded Construction The window frames are constructed of specially rolled, extra heavy steel sections, one inch in depth. All joints and corners are securely welded.

Convenient Ventilation Ventilators are of the awning type, hinged at the top to swing outwards at the bottom. The degree of opening is controlled by two adjustable sliding friction stays, one in each jamb and both completely concealed when the vent is in a closed position.

Available from Warehouse or Factory Truscon Ranch Windows are available from key warehouse stocks. Screens, interior steel casings or exterior steel surrounds for all size units are also stocked. Consult your nearest Truscon District Office, local Truscon dealer, or write for further information.



TRUSCON® STEEL COMPANY

1050 ALBERT STREET • YOUNGSTOWN 1, OHIO

Subsidiary of Republic Steel Corporation

Typical Crosley Kitchen installation in the Ambar Avenue Project, Cincinnati, Ohio. Frank Long of Long Construction Company, builder.

Through the back door pass the best prospects for your homes...

...if your kitchens are CROSLEY!

How are your homes shown? Are prospects led in the front way? Or are they taken in the right way, through the *back door*... straight into a beautiful, convenient Crosley-equipped Kitchen?

First impressions count, especially with Mrs. Prospect. And if the first thing she sees is a beautiful, modern Crosley Kitchen, she will be more than half sold *then* and *there!*

Don't forget to remind prospects that the most modern kitchen in the world . . . an *all*-Crosley Kitchen . . . can be included right in their package mortgage! It's a strong sales point!

Include these economical Crosley products in your new homes: Shelvador® Refrigerators, Shelvador® Freezers, Electric Ranges, Automatic Dishwashers, Wall and Base Cabinets, Range and Refrigerator Pantries, Sinks and Electric Food Waste Disposers.

FREE BOOKLET available to builders and architects. For information or booklet, write: Builder Sales, Crosley Division, AVCO Manufacturing Corporation, 1329 Arlington Street, Cincinnati 25, Ohio.

ATTENTION ARCHITECTS! When you draw up plans, specify and recommend Crosley products. They're most adaptable . . . most acceptable.

MODEL DD-75

This is one of the pace-setting Shelvador Refrigerators that more and more builders are including in their small homes. This 7.6-cubic-foot refrigerator features across-the-top freezer, frozen-storage drawer, and shelves recessed *in* the door.

CROSLEY DIVISION AVCO

BETTER PRODUCTS FOR HAPPIER LIVING

Machine Against Muscle

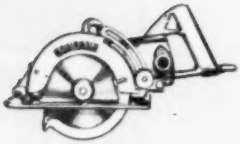
THE STORY OF WHY A FAMOUS COMPANY SEES FIT TO TAKE A NEW NAME

In 1924 the dream of a man named Joseph W. Sullivan was realized in a revolutionary new tool that was to take the industrial world by storm. The portable power saw was born and a young company was off to a flying start.

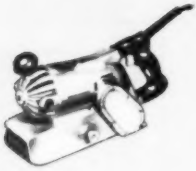
Inevitably, the success of this new power tool attracted imitators, brought others to the field. In spite of this, Skilsaw, Inc., maintained a leadership which continues to keep it *first* in the field.

With this remarkable growth came stronger and stronger demand from *all* industry for *other* kinds of power tools built with SKIL Quality, *other* ways to replace muscle with machine and do jobs better, with less work in less time. Skilsaw, Inc., has answered this demand—now offers more than 160 different models of portable power tools, each one an example of the finest engineering and quality in the field—SKIL Quality!

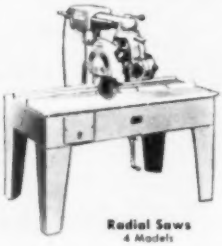
So it is with justifiable pride that we now alter a corporate name we have in simple fact outgrown. Hereafter, the company long known as Skilsaw, Inc., will be known as SKIL Corporation, the name to be remembered in the manufacture, sale and service of portable power tools.



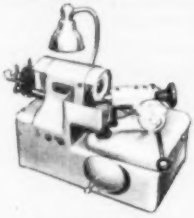
Saws
10 Models



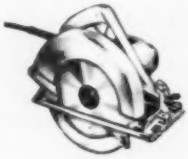
Belt Sanders
5 Models



Radial Saws
4 Models



Valve Refacers
3 Models



Saws
4 Models

SKIL Corporation

formerly SKILSAW, Inc.

5033 ELSTON AVENUE, CHICAGO 30, ILLINOIS

BOTH **SKIL** AND **SKILSAW** WILL CONTINUE TO BE USED AS TRADEMARKS

SKIL
PORTABLE TOOLS

Drills
26 Models

Plane
1 Model

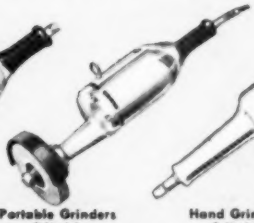
Bench Grinders
7 Models

BESIDES SAWS . . . 26 OTHER TOOLS AND

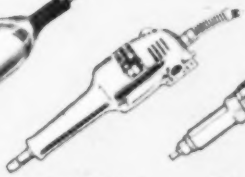
Oscillating Sander
1 Model

Floor Sanders
2 Models

Disc Sanders
6 Models



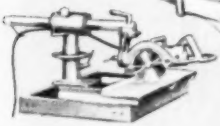
Portable Grinders
5 Models



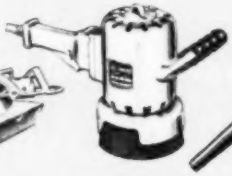
Hand Grinders
3 Models

Drivers and Runners
20 Models

MORE THAN 150 DIFFERENT MODELS



Radial Supports
3 Models

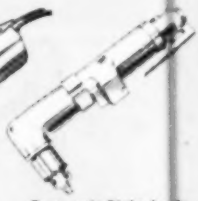


Polyphase Grinder
1 Model

Blowers
5 Models

Electric Hammer
1 Model

Shears
1 Model



Pneumatic Right Angle Drills & Drivers
6 Models

FOR EVERY INDUSTRY

Valve Seat Grinders
2 Models

Automobile Polishers
2 Models

Valve Seat Grinder Sets
4 Models

Pneumatic Hammers
12 Models

Pneumatic Drills
7 Models

Pneumatic Drivers and Runners
12 Models

Pneumatic Sanders and Polishers
2 Models

INCLUDING THESE SKIL HOME SHOP TOOLS

Belt Sander
1 Model

¼" Drills
2 Models

½" Drills
2 Models

Kits
[illegible] Models

Sander Polisher
1 Model

Oscillating Sander
1 Model

Hedge Trimmer
1 Model

NOW for the homes you plan and build

A new CURTIS *Woman-Designed* KITCHEN!

What kind of kitchen has the most "woman appeal"? To find the answer, Curtis consulted women stylists and designers—women home economists—thousands of women homemakers. The result: a beautiful new line of Curtis wood kitchen cabinet units embodying the 53 features that these women asked for.

Styled by Women!

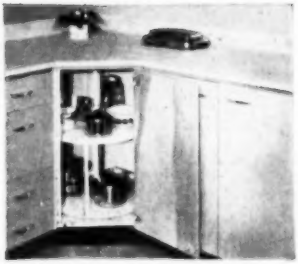
Women wanted more beauty—so these new Curtis wood cabinets are available with birch fronts for natural finishes, or painted white, ready for decorating in the colors of the owner's choice. Women wanted more convenience—so these new cabinets greatly reduce stooping, bending, stretching. Women wanted more and better storage space—so Curtis cabinets contain a host of new all-purpose storage advantages!

Tested by Women!

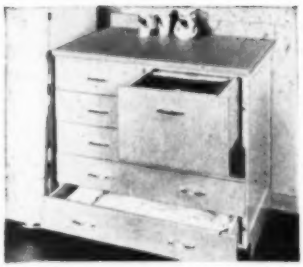
Approved by Women!

new CURTIS features like these mean more advantages in any SIZE or SHAPE of KITCHEN!

No Waste space—swing shelves in wall and base units utilize entire storage area. Women are sure to love this handy Curtis feature.

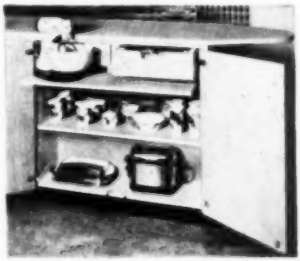


Front row storage—spin shelves in wall and floor corner units bring often-used utensils within easy reach—provide maximum storage.



Extra Large metal bread and cake box, with sliding cover. Easy operating, non-sticking drawers, with hardwood runs.

Step-saving hanging units have shelves accessible from both sides. Shelves have safety rests and are easily adjustable in height.



Woman-Designed base "Island" unit with two pass-through drawers, large mixing board, pass-through shelf, and space for large utensils.

No "scrambling"—sliding tray with removable dividers—Perma-Brite no-sag sliding wire shelf—deep shelf for roaster and large utensils.

full information yours for the asking—mail the coupon!

CURTIS COMPANIES SERVICE BUREAU

Clinton, Iowa

Curtis makes a complete line of architectural woodwork and Silentite windows for homes of all types and sizes. Make your next house "all Curtis."

1866 CURTIS WOODWORK

Curtis Companies Service Bureau
AB-10 Curtis Building, Clinton, Iowa

Please send booklet on new Curtis woman-styled kitchens.

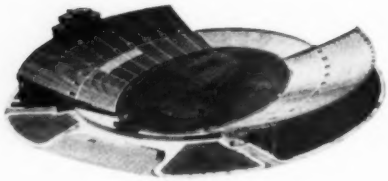
Name.....

Address.....

City.....*Zone*.....*State*.....

MASS

STRUCTURAL



ARCHITECTURAL

PAVING

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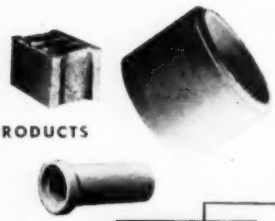

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Young Man in a Hurry

ON a hot August evening this summer, a party precinct captain appeared at my house. He happened to represent the party whose candidates I do not favor. He gave me a canned line of stupidities, left his campaign literature, and went on to the next house.

A few minutes later another stranger arrived, and asked if he could have just five minutes of my time to present his views of the issues in the coming election campaign. He was a young man, thirtyish, and he got an affirmative answer to his request. After explaining that he was not affiliated with any party, that he was a vet with a young family, and a full time salesman for an oil company, he began his presentation. For five minutes I listened to the most sincere, impassioned plea for support of a congressional candidate opposed to socialism and big government that I have ever heard. He concluded by telling me that he represented no party, no organization, and that he had decided that the world he was living in and raising his children in was in such a critical condition that he ought to use his experience as an oil salesman to try to sell some political views on his own.

When I told him that he had failed to sell me I got both barrels of what was obviously an unprepared, amateurish, but nevertheless convincing sales talk on socialism and its threat to everything American. He wound up by telling me that if I would not buy that he was wasting his time and had better be on his way, because he was trailing the precinct captain every night, selling against him.

At this point, I got a chance to tell him that the only reason he had not sold me was because I believed everything he had said. I had to add, however, that he had sold me a reaffirmation of faith in the youth of the country, not because he happened to be on my side, but because he was making a political campaign a matter of personal interest and responsibility.

If the current generation of fiftyish Americans had had the same sense of responsibility this young oil salesman has, there would be no socialism or big government issue in this campaign. We would have established both firmly 25 years ago, or we would have so completely refuted both that they never could become issues again. It has been indifference that has given rise to the current issues and the confusion that surrounds them.

Practically everything that is printed, televised or radioed today admonishes the readers, viewers or listeners to register and vote. It isn't enough for professional salesmen to stop here. There are nights, Saturdays and Sundays available for a tremendous political selling job. If every salesman would enploy his talents like the young oil salesman—*the young man in a hurry*—chasing a precinct captain to countersell him, there would be no need to admonish the public to register and vote. It would do both, and voting would be by studied conviction, one way or the other. The building industry has thousands of professional salesmen. How many of them are young men in a hurry—in a hurry to sell political issues on a volunteer basis to the public?

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AB Washington News Letter

For the Light Construction Industry

A special service for American Builder readers. The latest Washington developments affecting the light construction industry assembled by special Washington correspondent and sent by wire to be printed and bound in your American Builder at the last minute before it is mailed. A regular monthly feature.

Washington, September 19, 1952

▶ REGULATION X IS SUSPENDED. The Federal Reserve Board announced the end, effective September 16, when it was learned August housing starts were below the 1,200,000 per year rate.

▶ THE SUSPENSION is on conventional mortgages. The board also relaxed credit controls on commercial construction. The law allowed retention of a 5 per cent downpayment requirement on housing but the board apparently felt this would be a meaningless gesture. Simultaneously, HHFA announced relaxation on FHA and VA mortgages. New FHA requirements are from 5 per cent to 20 per cent, as fixed by the National Housing Act and "Regulatory Limitations." Under Reg. X, FHA downpayment ranged from 5 to 40 per cent.

▶ MINIMUM DOWNPAYMENT requirements on VA guaranteed home loans will now be 5 per cent on housing priced above $8,400 instead of increasing up to 35 per cent. For houses priced from $7,000 to $8,400, the minimum downpayment now is 4 per cent. No downpayment is required on housing priced at $7,000 or less but closing costs must be paid in cash.

▶ TIME LIMITS allowed for paying off Government-aided mortgages remain as before: 25 years on housing valued at $12,000 or less, 20 years for those costing more.

▶ COMMISSIONER GREENE OF FHA announced that the maximum FHA-insured loan for single family dwellings will be $14,000. This limitation is designed to increase incentive for builders to work in the moderate and lower-priced housing fields, Mr. Greene said.

▶ AUGUST HOUSING STARTS were estimated at 99,000 by the Bureau of Labor Statistics. The seasonally adjusted annual rate for August was 1,035,000.

▶ NPA HAS PROMISED HOMEBUILDERS that materials controls will be relaxed substantially next April 1. The agency so advised the Construction Industry Advisory Committee at a meeting late last month.

▶ THE LET-UP MIGHT COME SOONER. NPA set the April 1 date but agreed to review the materials situation again within a few weeks to see if earlier relaxation is possible. In the meantime, the agency plans to go ahead and issue an order with the April 1, 1953, effective date "so that builders can do the preliminary planning for future construction and place advance orders with suppliers."

▶ THIS ORDER will allow builders to place purchase orders at any time, provided such orders do not call for delivery before April 1, 1953, NPA said.

▶ STEEL IS THE THING that has controls officials worried. Military production lost as a result of this summer's steel strike must be made up before increases can be permitted in civilian uses.

▶ BUT STEEL PRODUCTION HAS BOUNCED BACK FAST. By September 1 the mills were producing at peak capacity, and it looked like military order backlogs would be overcome considerably ahead of schedule. In that case, NPA may decide to move up to January 1 the date for relaxing homebuilding controls. Another meeting with the decontrol "task force" is scheduled for October 29.

▶ PROMISED RELAXATIONS in store are these: (1) allowing the use of 1,500 pounds of structural steel per unit in residential construction; (2) permitting, for the first time, some self-certification for recreational, entertainment and amusement construction; (3) authorizing, also for the first time, self-certification procedure for builders of multi-unit residences; and (4) increasing self-certification allowances for most other types of construction.

▶ DISTRIBUTORS of brass mill products received NPA permission to acquire increased quantities of such products this month in order to meet customer demands. With stocks of steel pipe at low ebb, NPA feared a shortage of plumbing and heating materials would halt construction of homes in many areas. Relief was granted to provide these materials in the form of brass mill products.

▶ALUMINUM AND COPPER supplies, at the moment, are sufficient "to meet all important needs of both defense and civilian production," NPA reports. These two metals have been taken off the government's list of "most critical" materials, but remain under control nevertheless.

▶ TOP-LEVEL SHUFFLE of mobilization officials this month made Henry H. Fowler the nation's new Defense Mobilizer. Mr. Fowler has been chief of DPA-NPA. His new job is the one Charles E. Wilson held until he resigned over the steel dispute. Dr. John R. Steelman, assistant to the President, has filled in since Mr. Wilson left.

▶ TIGHE E. WOODS, well known as rent stabilizer, is the new head of OPS. He succeeded Ellis Arnall. James McI. Henderson, general counsel of ESA, was named to replace Mr. Woods as Director of Rent Stabilization.

▶ OUTLOOK FOR HOME SALES during the remainder of the year is good, according to a new Federal Reserve Board study. Increased housing starts since last winter, modification of credit regulations and continued high levels of personal income "suggest that sales of new houses will continue at a high level or increase in the months ahead." FRB also found indications of a "substantial market" for housing in 1953.

▶ SOME FACTS about the prospective home buyers were pointed out in the FRB study. Almost a third of the prospects had 1951 incomes of less than $4,000; about half of them are veterans; and about 4 out of 10 prospective buyers already own houses.

▶ A HOUSE COMMITTEE headed by Representative Olin E. Teague of Texas has issued its long-awaited report on the VA loan guaranty program. The committee was critical of many VA activities, particularly irregularity of officials in some regional offices.

▶ ONE MAJOR RECOMMENDATION of the Teague committee: Give VA full supervision of contract terms between sellers and GI home buyers. The group said VA should be specifically authorized to require that sales contracts incorporate plans and specifications; that specific details of closing costs and date of delivery be included; and that such contracts stipulate construction has been in accordance with minimum VA standards.

▶ ANOTHER FEATURE of these VA-supervised sales contracts would be a one-year guarantee or warranty on heating, plumbing, electrical fixtures, dry basement, a sound roof and, if septic tanks are used, a satisfactory septic tank.

▶ VA SHOULD FURNISH VETERAN home buyers with an information manual, explaining the responsibility of the veteran, the builder, and the realtor. This booklet, the committee said, "should explain common legal terms used in real estate transactions and should warn the veteran of common construction defects and the dangers of inadequate sales contracts and sharp real estate practices."

▶ LEGISLATION WOULD BE REQUIRED to effect these changes. Proposals for such legislation are certain to be made as soon as Congress reconvenes next January. Chances of adoption look good. Representative Teague, a Democrat, is top-ranking member of the powerful Veterans Affairs committee, and is in good position to push such legislation.

▶ HOMEBUILDER SPOKESMEN, while resenting some implications of the Teague committee report, have indicated industry support for many of the recommended changes. NAHB President Alan E. Brockbank said his organization concurs "with many of the findings and recommendations," and will pledge "full cooperation" to any congressional group attempting to establish fair standards of protection to home buyers.

▶ FNMA resumed purchases of eligible FHA-insured and VA-guaranteed mortgages early this month. Only those mortgages insured or guaranteed since February 29, 1952, are eligible, and the agency can acquire only limited amounts of a lender's portfolio, i.e., 50 per cent of the dollar amount of VA mortgages and 25 per cent of the dollar amount of FHA mortgages. FNMA has about $400,000,000 for such purchases.

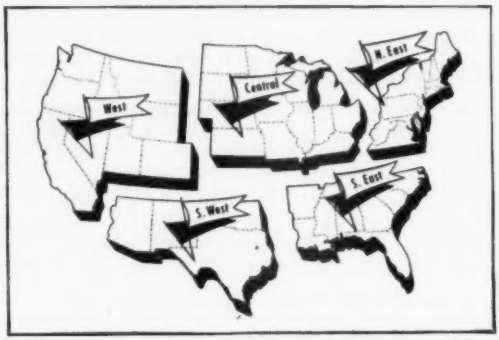
▶ HHFA SUBMITTED ITS ANNUAL REPORT to Congress this month. The report covered activities during the calendar year 1951, and contained, among other things, this comment on housing costs: "Over the years, the high cost of housing has been a major handicap in achieving a more adequate distribution of housing, particularly for families with average or less-than-average incomes. So long as costs remain high, they pose a serious threat to the future prospect of maintaining the high level of production which the industry has proved capable of achieving. . . . At current costs and price levels, there is reason to doubt the continuance of an adequate market. . . .

▶ "IF THE PRICE AND COST PROBLEM can be solved, thereby opening new markets for the industry in the middle- and lower-income groups and in housing replacement, there is reason to believe that we can look forward to achieving a stabilized production at very high levels, after the objectives of the national defense program have been attained."

Here's the Home Building Picture Across the Nation

WITH THIS ISSUE, *American Builder* completes its first year of quarterly telegraphic surveys to feel the home-building pulse of the nation. This last-minute probing into current problems of each section provides the latest authentic information as an invaluable guide to aid building industry members chart their own future course.

This is straight-from-the-shoulder opinion obtained directly from leading builders in all areas. The map at the right indicates locations of states in regional summaries.



Consensus:

Suspension of Regulation X will spur new home starts, upsetting expected downward seasonal trend in many areas.

Financing appears headed for a new crisis. VA money is virtually wiped out in all areas except New England and New York. FHA funds are becoming scarce in several cities. Even the conventionals show signs of tightening.

Building costs will continue to climb in most areas, with increases estimated at 3 to 20 per cent within six months.

Sales resistance remains about the same as far as the level at which it is first noticeable is concerned ($10,000 to $12,000). Many areas report the slowdown is increasing, but attributed this to Regulation X.

Labor shortages, while few, appear to have increased slightly since the July survey. Plasterers and plumbers head the list. Materials remain adequate, steel being only problem.

Among new houses, the one-story type is definitely the favorite, generally with basement in northern areas, without it in southern zones. Some northern cities find trend toward basementless style growing.

★ ★ ★

Home Starts in Next Six Months—Increase or Decrease?

Northeast

Look for an increase of about 10 per cent in Washington, South Jersey and Long Island. Philadelphia and New England cities figure to hold at least an even pace. Northern New Jersey expects a slight decline and central New York a fairly sharp drop.

Southeast

Downward trend indicated, headed by declines of about 25 per cent in Atlanta and 10 per cent in Jackson, Miss. No change is in sight at any other area excepting New Orleans, where starts may improve as much as 20 per cent.

Central

Increases of 10 per cent are foreseen at Sioux City, Iowa, and South Bend, Ind.; also an undetermined rise in Minneapolis. Wichita, Kans., sees conventional starts up 25 per cent but offset by 50 per cent slash in FHA and VA starts. Slight seasonal drop in view at Cleveland. Davenport, Iowa, expects reduction of 10 per cent; St. Louis, 15 per cent, and Des Moines, Iowa, 20 per cent. Death of Regulation X, says Cincinnati, will prevent 25 per cent cut.

Southwest

With removal of Regulation X, starts will jump 5 per cent, says Oklahoma City. Tulsa, Okla., expects 25 per cent cutback unless VA commitments open up. Texas cities figuring present fast rate will continue unchecked, except San Antonio, which looks for some slowing down.

West

Salt Lake City looks for drop of at least 30 per cent; San Francisco-San Mateo, Calif., area, 25 per cent. Only increases anticipated are at Denver, about 10 per cent, and Spokane, Wash., 8 per cent.

What's the Mortgage Money Situation For New Home Financing?

Northeast

All loans in good supply at Boston and Springfield, Mass.; Rochester, Schenectady and Long Island, N. Y., the latter qualifying this to mean "for established builders." Tight Philadelphia situation seen easing, with increased FHA and VA activity. No VA money in Washington. VA loan dearth in Schenectady area laid to agency's "fussy" rule builder must guarantee definite flow of water from a well. VA adequate in South Jersey if "top legal premium" is paid.

Southeast

VA loans practically out of market. FHA supply generally fair; in Atlanta, improving. Conventional financing fair in Birmingham, Ala.; good to ample elsewhere.

Central

Louisville, as well as Des Moines, Davenport and Sioux City, Iowa, report even conventionals are obtainable only in limited quantities. VA loans non-existent or nearly so, but Wichita, Kans., reports some are available if builders pay 4 per cent premium. FHA funds scarce in Lincoln, Nebr.

Southwest

Conventional and FHA loans adequate, except FHA's are limited in San Antonio and Pampa, Texas, and Oklahoma City. VA money practically extinct, but some can be had in Houston for premiums of 2½ to 5 per cent. Amarillo, Texas, notes a steady, if slow, improvement in VA activity, but Tulsa, Okla., finds it disappearing, despite increasing demand.

West

Only Spokane, Wash., reports FHA funds tight. FHA and conventionals in good supply elsewhere. No VA loans being issued in Spokane; only a small trickle in other cities.

THERE'S MORE TO MORTAR THAN MEETS THE EYE

5 Good Reasons Why More and More Masons [X] Vote for Lone Star Masonry Cement

● First-quality masonry work, with durability to match attractive appearance, confirms the judgment of Architect and Masonry Contractor in using LONE STAR MASONRY CEMENT on this well-designed Junior High School in fast-growing Brownsville, Texas. *ONE quality-controlled cementing material instead of TWO:* Saves time and money . . . assures uniformly high quality mortar, from batch to batch and job to job . . . mortar which combines all of the properties desired by Architect, Builder and Owner:

(1) High water retention, assuring utmost workability, plasticity and bond; (2) Adequate strength; (3) Soundness—no delayed expansion; (4) Low absorption and high water repellency, safeguard against unsightly efflorescence; (5) Negligible shrinkage.

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PHILADELPHIA • RICHMOND • ST. LOUIS • WASHINGTON, D. C.

LONE STAR CEMENT, WITH ITS SUBSIDIARIES, IS ONE OF THE WORLD'S LARGEST CEMENT PRODUCERS: 17 MODERN MILLS, 125,600,000 SACKS ANNUAL CAPACITY

Will Building Costs Still Climb In the Next Six Months?

Northeast

Most areas in New Jersey, central and southern New York and Massachusetts figure on further increase: average perhaps 5 per cent. Long Island blames labor and steel strike: says steel seems to set pattern which whole nation has to follow.

Southeast

No change anticipated in any sector of this area.

Central

Further rise up to 7 per cent forecast in St. Louis; to 5 per cent in Cleveland and Cincinnati and 3 per cent in Lincoln, Nebr. No other changes expected, with most cities pointing out that increases have recently occurred.

Southwest

"Skyrocketing" land costs will boost building costs 15 to 20 per cent, fears Tulsa, Okla., while Pampa, Texas, blames steel for impending 10 per cent rise. Costs are expected to move up at least 5 per cent in San Antonio. Conditions in other cities will probably remain unchanged.

West

Spokane, Wash., is sole area in country to anticipate a decrease—5 per cent. Other sectors figure on increases from 5 per cent in Salt Lake City up to as much as 10 per cent in San Francisco and San Mateo.

Is Sales Resistance Increasing? In What Price Brackets?

Northeast

Philadelphia notes absence of resistance, cites recent case of builder who sold 53 low-priced houses in four hours, then took names of 300 more persons who wanted same house. Resistance lessening at Washington, now affecting $19,000 to $24,000 bracket. Sales slowdown begins at $10,000 on Long Island, at $12,000 in northern New Jersey and Springfield, Mass. Boston reports increasing difficulty to sell over $15,000. Rochester had trouble; now finds situation easing. So does Worcester, Mass., in $16,000-$22,000 range.

Southeast

South Florida and Jackson, Miss., still have no selling difficulties, but Atlanta finds resistance has increased considerably. Other areas find homes at $15,000 and up move more slowly.

Central

Resistance in all ranges felt in St. Louis and Minneapolis, but lessening. No problem in Louisville. Slowdown in $11,000 to $14,000 group building up at Des Moines, Iowa; over $15,000 in most other cities reporting. Wichita, Kans., sees slower sales a healthy, normal condition. Lincoln, Nebr., with increasing resistance, looks forward to reactivating of air base to cause better market within eight months.

Southwest

Sales slowed in all ranges at Tulsa, Okla.; on the decline above $9,000 in Oklahoma City, above $10,000 in Texas centers. "Slower than last year in all brackets," according to Houston. San Antonio declares "resistance is greater now than at any time since the end of World War II."

West

San Mateo alone finds no resistance except from buyers who require VA financing. Slowdown begins at $7,000 in Spokane, Wash.; $12,000 in Denver; $13,000, Salt Lake City, and this trend is rising due to high down payments.

What's the Most Popular New House? Does It Represent a Changing Trend?

Northeast

Philadelphia suburbs running strongly to basementless type, which still is favored around Boston. One-story with basement homes hold top position in other cities, except Washington, which sticks to two-story units, with basements.

Southeast

One-story basementless houses seem to be adding to their lead, with Birmingham, Ala., noting a trend to this type, already long popular in Florida, Mississippi and Louisiana.

Central

One-story house with basement holds about four to one lead over its counterpart without basement. Latter have recently become most popular in Louisville and Wichita, Kans.; are gaining in Davenport, Iowa and Lincoln, Nebr.

Southwest

Basementless models prevail. Main trend change is to three-bedroom units with modern design.

West

One-story units far in lead. Upper Coast cities like basements; California and Denver don't.

Is the Labor Supply Adequate In All Trades?

Northeast

Labor market satisfactory, except for plasterers. Long Island reports oversupply, with plasterers out in the field soliciting business, while Washington has a shortage in this trade. Schenectady, N. Y. notes 35 per cent shortage of plasterers, also a dearth of masons. South Jersey alone has general shortage: 20 per cent in most trades.

Southeast

Supply fair in New Orleans, adequate elsewhere, with 30 per cent oversupply of carpenters and masons at Atlanta.

Central

Cleveland reports shortage of plasterers and masons. South Bend, Ind., could use twice as many masons, 10 per cent more plumbers. Cincinnati finds situation is barely adequate, notes 20 per cent shortage of plumbers.

Southwest

Houston needs 10 per cent more bricklayers.

West

Denver finds "efficient and qualified" labor tight in all crafts. San Mateo, Calif., reports 25 per cent shortage of carpenters and plumbers.

Are Materials in Adequate Supply?

Northeast

Only Washington feels the pinch: in steel.

Southeast

Jackson, Miss., lists shortage of half-inch steel for foundations, but anticipates early improvement.

Central

Sioux City, Iowa, steel supply is 50 per cent short.

Southwest

Texas Panhandle (Amarillo, Pampa) notes structural steel shortage, up to 25 per cent.

West

Materials in good supply throughout area.

Give Home Owners the Kind of Windows They Want!

BILT-WELL

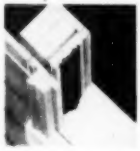
Superior Unit Wood Windows

Complete weathertight protection plus easy operating windows at all times!

Specify Bilt-Well Superior wood windows ...perfectly counterbalanced, smooth, quiet, easy sliding the year 'round

Super-exclusive jamb-liner weatherstrip is flexible

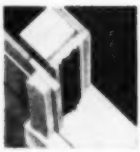
Adjustable to Various Wall Thicknesses



7/32" outside sheathing and ¾" lath and plaster on 2x4's—and Superior full width jamb

7/32" outside sheathing and dry-wall (⅜" or ½") inside on 2x4's and "Superior" minus inside strip on jamb

½" outside sheathing and dry-wall (⅜" or ½") inside on 2x4's, cut-off rib on blind stop and remove inside jamb strip



½" outside sheathing and ¾" dry-wall applied over ½" insulation board on 2x4's, cut-off rib on blind stop

Here's a list of the Bilt-Well line:

Superior Unit Wood Windows • Nu-Style & Multiple-Use Cabinets Carr-doe Garage Doors • Combination Doors • Screens & Storm Sash Basement Unit Windows • Shutters • Exterior Doors • Interior Doors Entrances • Louvers & Gable Sash • Corner China Cabinets • Ironing Board Cabinets • Mantels • Telephone Cabinets • Stair Parts

Build Well with BILT-WELL WOOD WORK

Manufactured by

Carr, Adams & Collier Co.

Dubuque, Iowa

BATHROOM DESIGN BY EUGENE KEITH, A.I.A.

Give your customers more for their money with Marlite Hi-Gloss and Woodpanel!

Eliminate costly painting operations, add sales appeal to your homes, give your customers beautiful, colorful interiors with these two, great new Marlite plastic-finished wall and ceiling panels.

MARLITE WOODPANEL, in authentic reproductions of fine, fully-finished wood grains, makes possible beautiful, economical interiors in dens, recreation rooms, libraries, living rooms, offices, corridors, waiting rooms, bars, lounges, etc.

MARLITE HI-GLOSS, a new low-cost panel in Plain, Horizontaline, and Tile Patterns, is ideal for maintenance-free bathrooms, kitchens, utility rooms, laboratories, rest rooms, operating rooms, etc. And every Marlite panel features the exclusive high-heat-baked finish which resists moisture, grease, acids, heat, alkalies, and stains.

Check over your fall projects now—then choose from 67 striking Marlite color and pattern combinations for creating beautiful residential, commercial, industrial, and institutional interiors.

MARLITE IS NATIONALLY ADVERTISED

Your clients are reading about Marlite in leading national publications: Better Homes & Gardens, American Home, Country Gentleman, Small Homes Guide, Sunset, Home Maintenance & Improvement, American Motel, Better Theatres, Chain Store Age, Institutions, Progressive Grocer, American Builder, Practical Builder, and Architectural Record.

WRITE FOR NEW LITERATURE. Full color Catalog and Hi-Gloss and Woodpanel Folder are now ready. MARSH WALL PRODUCTS, INC., Dept 1003, Dover, Ohio. Subsidiary of Masonite Corporation.

Solve remodeling problems with versatile Marlite!

Marlite
PREFINISHED
WALL and CEILING PANELS

Add Sales Appeal with the NEW TIMKEN *Silent Automatic* Gas Furnace Line!

New Engineering! New Styling! New Sales Opportunities!

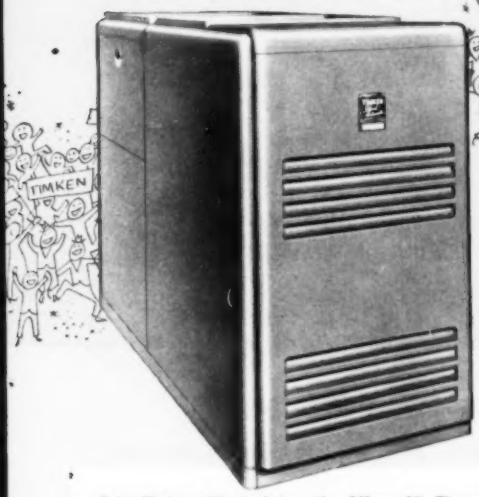
A BIGGER LINE FOR FASTER HOME SALES AND BIGGER PROFITS!

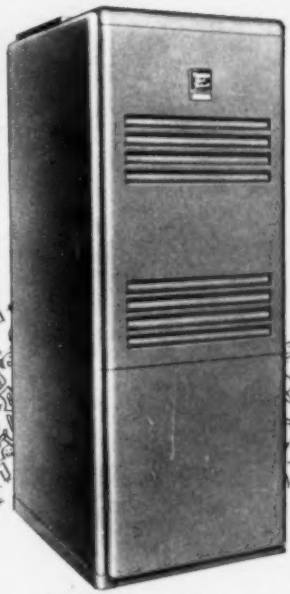
Here's sure-fire sales opportunity for architects and builders! It's the all-new, feature-packed Timken Silent Automatic gas furnace line—one of the finest, most complete lines of gas-fired furnaces ever offered by one manufacturer!

These furnaces have everything! Spanking new and good looking, they're competitively priced to meet rigid construction budgets! And they're *experience-engineered* by men with more than 25 years of heat engineering behind them.

Architects and builders who feature this most advanced of all forced warm air gas furnace lines are going to sell their homes faster! Home buyers recognize quality in the Timken Silent Automatic name, and *quality* sells homes!

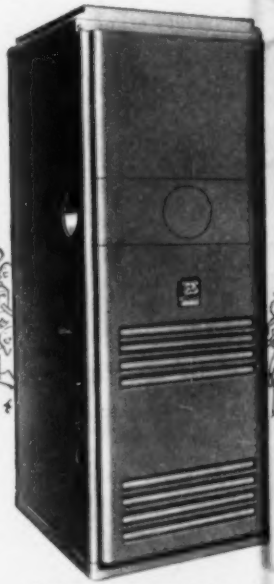
APPROVED BY AMERICAN GAS ASSOCIATION





▲ HI-FURNACES. For basement or utility room installation. Ideal for homes where space is at a premium. Six sizes with input capacities from 75,000 to 200,000 Btu. Height is 63 inches, depth 29 inches, with widths varying from 16 to 34 inches.

◀ LO-FURNACES. For basement installation. Especially suitable where ceilings are low. Six sizes with input capacities from 75,000 to 200,000 Btu. They are 41 inches high, 42 inches deep and vary in width from 16 to 34 inches.



▲ COUNTERFLOW-FURNACES. For small basementless homes, especially those using perimeter heating systems. Three sizes with capacities from 75,000 to 125,000 Btu. Height is 63 inches, depth 29 inches, with widths varying from 12 to 23 inches.

The new Timken Silent Automatic forced warm air gas furnaces are the latest addition to a complete line of quality-built gas-fired equipment for every home heating need. Other models include boilers, conversion burners and oil-to-gas conversion kits.

Only Timken Silent Automatic Offers All These Outstanding Sales Features!

- **NEW ENGINEERING!** Years were spent in developing these superior furnaces. Each unit combines all the finest, most wanted gas heating features in one handsome cabinet!
- **NEW STYLING!** These furnaces are lifetime beauties! Sturdy modern construction and a silver-tan baked-enamel finish give them real eye-and-buy appeal!
- **NEW BURNER!** Advance-designed ribbon-type burner is precision die-formed of stamped steel, vitreous enameled inside and out to prevent corrosion. Assures efficient, dependable operation at all times!
- **NEW FEATURES!** Adjustable blower speeds . . . . flame-proof filters of spun glass . . . . quiet, rubber-mounted motor . . . completely automatic controls!
- **NEW SALES OPPORTUNITIES!** Fifteen different models and sizes make it possible to meet the heating needs of your homes with dependable, top-quality equipment!
- **NEW ADAPTABILITY!** They function perfectly at both normal and high altitudes with any city gas, LP or LP-Air mixture.
- **AND REMEMBER!** When you advertise that your homes are Timken Silent Automatic equipped, they'll sell faster! There's no substitute for the Timken Silent Automatic quality reputation!

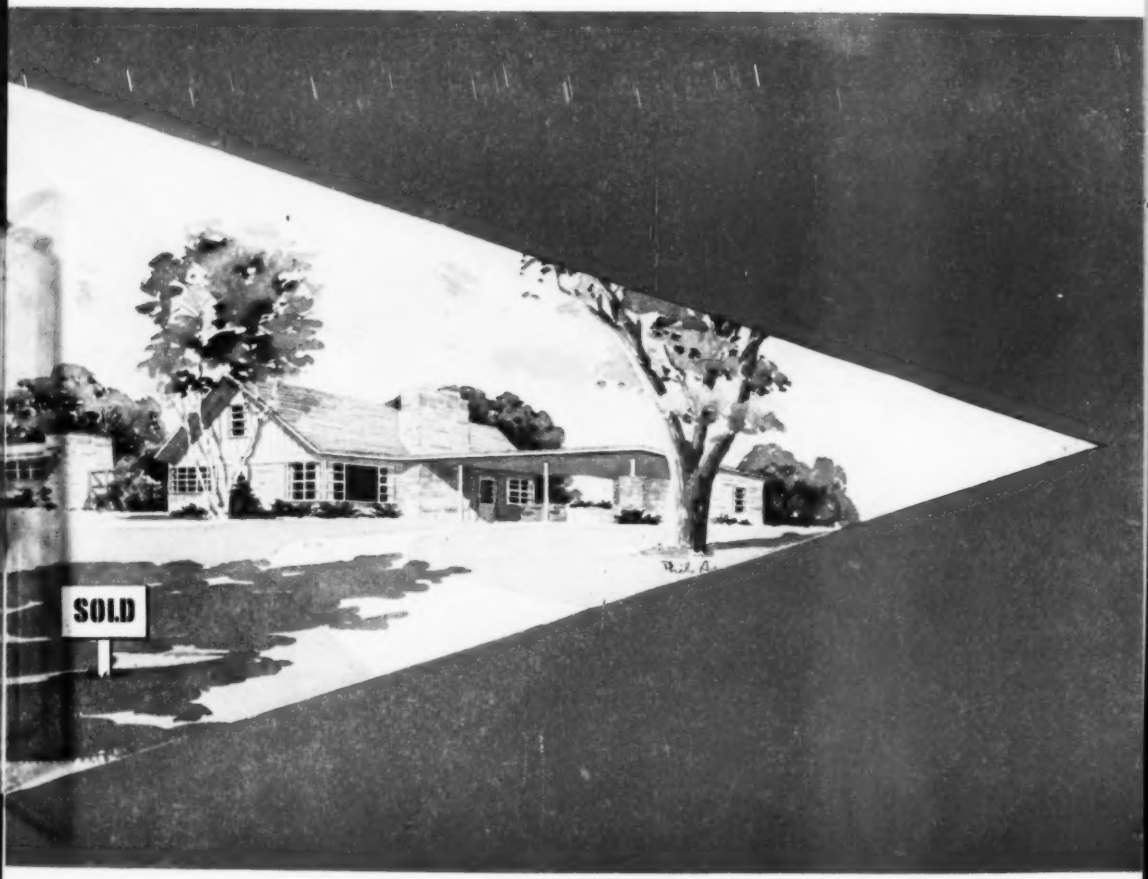
TIMKEN
Silent Automatic
GAS HEAT

TIMKEN SILENT AUTOMATIC DIVISION
The Timken-Detroit Axle Company • Jackson, Michigan
The Timken-Detroit Axle Company of Canada, Ltd., Toronto, Ont.

Accepted SA Standard

TRADE MARK REGISTERED

the SOLD sign goes up quicker...



One of the **easiest** ways to sell a home **quicker** is to give the buyer what he wants . . . Builders everywhere say homes with metal windows sell faster because home-owners prefer metal windows over any other type . . . A recent study here at Ceco substantiates what builders believe . . . what they know to be true of customer preference. Both builder and buyer said they prefer Ceco metal windows, because they are easy to clean and maintain, won't rust, warp, stick or swell and are truly better looking . . . Slender muntins mean more light gets in . . . more view, too . . . We believe it is significant that our study showed twice as many home-owners selected metal windows in the planning stage as chose a competing product . . . Yes, it's evident the swing is to metal

on homes with metal windows

Ceco Steel Residence Casements and Picture Window

Ceco-Sterling **Double-Hung** Aluminum Window Series 50-B for residences

windows . . . that is why we feature Ceco-Sterling Double-Hung Aluminum Windows and Ceco Metal Casements. If you are a builder who hasn't featured metal windows in your homes, let us tell you more about how you can sell more homes by giving people what they want . . . Ceco-Sterling Double-Hung Aluminum Windows and Ceco Metal Casements.

In construction products

CECO ENGINEERING

makes the big difference

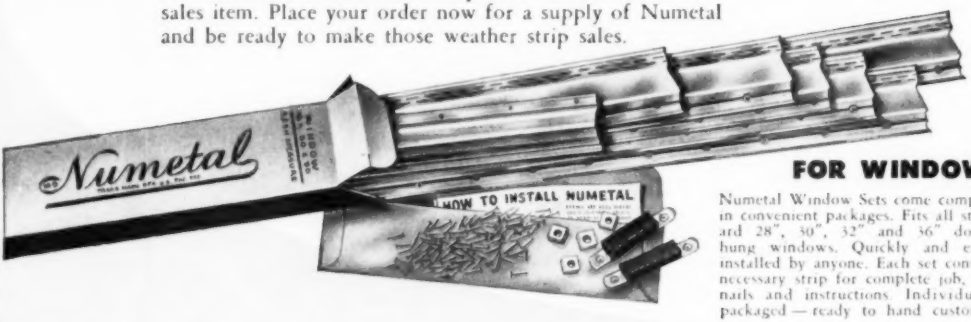
CECO STEEL PRODUCTS CORPORATION

General offices: 5601 West 26th St., Chicago 50, Illinois

Offices, warehouses and fabricating plants in principal cities

For 30 Years America's

An old friend, and a leader in weather strip sales for 30 years. Conveniently packaged in sets for windows or doors in individual cartons. A perfect over-the-counter sales item. Place your order now for a supply of Numetal and be ready to make those weather strip sales.



FOR WINDOWS

Numetal Window Sets come complete in convenient packages. Fits all standard 28", 30", 32" and 36" double hung windows. Quickly and easily installed by anyone. Each set contains necessary strip for complete job, plus nails and instructions. Individually packaged — ready to hand customer!

Nu-WAY WEATHER STRIP

Easiest in the world to put on

Any clerk, regardless of experience, can sell Nu-Way Weather Strip! That's because any customer can put it on quickly and easily.

Nu-Way works perfectly on most any type window, storm-sash or door. Made of moth-proof, pre-shrunk, color-fast wool felt and white metal.

Yes, Nu-Way keeps out cold — saves fuel. And sells at a low price that really brings in sales!

This colorful, attractive display carton really sells the goods! Contains one individual 18 ft. roll of Nu-WAY, with sufficient nails and instructions for easy installing. Stock up today!

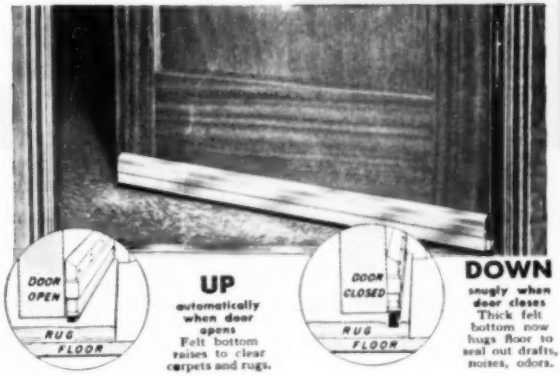
Mac says "Be prepared for COLD WEATHER SALES!"

ORDER NOW — *your order will be shipped same day received*

Leading *WEATHER STRIPS!*

FOR DOORS

Numetal Weather Strip comes in handy sets for almost all standard doors. Available with regular stainless steel and felt door bottom strip, or with threshold and exposed hook. Easily installed — no special skill or tools needed. Comes complete. All ready to install.



UP automatically when door opens Felt bottom raises to clear carpets and rugs.

DOWN snugly when door closes Thick felt bottom now hugs floor to seal out drafts, noises, odors.

Nu GARD *Automatic*

DOOR BOTTOM & DRAFT ELIMINATOR

Show customers how it works, and this automatic door bottom sells itself. It's the perfect answer for all drafty doors — inside or outside! Completely solves the old problem of clearing rug or carpet every time door opens. Nu-GARD is beautifully designed with smart, silvery-satin finish and easily installed. Will not rust or tarnish. Furnished in 28", 32", 36", 42" and 48" lengths. May be shortened approximately 2". Packed in individual cartons.

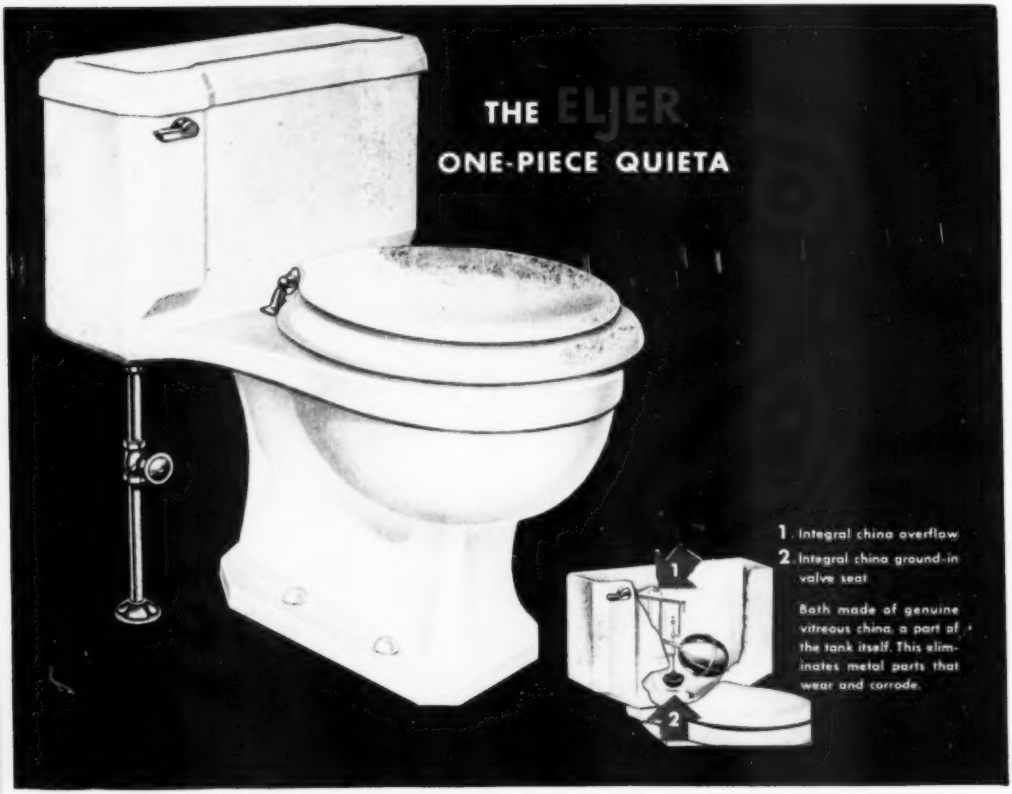
Numetal DOOR BOTTOM STRIP

Here's a fast-selling weatherproof item that is tops in the field! Made of thick, wool felt and heavy gauge stainless steel. Furnished in standard lengths — 28", 30", 32", 36", 42" and 48" — packed ½ dozen same length to carton. Also furnished in special lengths.

MACKLANBURG DUNCAN CO.
MANUFACTURERS OF
QUALITY
BUILDING SPECIALTIES

MACKLANBURG DUNCAN CO.

OKLAHOMA CITY, OKLAHOMA



EXTRA ELJER FEATURES FOR *BUY APPEAL*

The gleaming beauty and quality features of the one-piece Eljer Quieta add the extra "buy appeal" to houses that can make them sell f-a-s-t-e-r.

The distinctive styling of the Quieta makes it easier to clean . . . extra sanitary. The tank and bowl are one piece of heavy vitreous china. Available in White, Coral Blush, Twilight Blue, Pastel Green and Colonial Yellow . . . with round front or elongated bowl.

Operates quietly . . . efficiently, thanks to Eljer's exclusive Elvortex Whirlpool *Jet Action Flush* and *Balanced Construction Ballcock.*

Remember, the one-piece Quieta is the finest water closet available. So for extra sales appeal in your next house, tell your plumbing contractor to install the Eljer Quieta. For information about Eljer's complete line . . . write Eljer Co., Box 192, Ford City, Pennsylvania.

.....NEWS OF ASSOCIATIONS

1952 National Home Week Participation Cited as Widest in Event's History

The nation's doors were thrown open September 14-21 for the industry's greatest home show, NATIONAL HOME WEEK.

On a bigger scale this year with wider participation by all components of the home building industry, the Week was marked by civic celebrations, displays, product exhibits, parades, speaking programs, school events, television and radio programs, and many other attention-getting ideas.

Special observances were held in nearly 100 cities in all parts of the country, in addition to the national coverage. Crowds totaling millions turned out to see the new homes on display.

Heavy publicity during the Week was focused on the industry's impressive production of new homes in recent years. Also stressed was data indicating that home buyers in 1952 spend a smaller proportion of their income for housing than at any previous time, yet receive more for their money.

Scheduled for the November issue of *American Builder* is a detailed report on results of the Week.

Prefab Group Adds 2 Members

Two new firms have been elected to membership in the Prefabricated Home Manufacturers Institute, manager Harry H. Steidle reports.

They are Connett Engineered Homes, Inc., St. Joseph, Mo., an affiliate of Connett Coal and Lumber Co.; and Precision Built Homes, Inc., Baltimore, Md.

Summer Good Will Program Scores "Hit" in Chicago

The two competing national political conventions didn't keep the Chicago Metropolitan Home Builders Association from accomplishing something extra in the way of public relations last July.

During the month, usually a quiet one for group activity, the association sponsored a series of 17 talks by a well-known economist and "business evangelist," DeLoss Walker, before labor groups, service and women's clubs and other organizations. Objective of the program, the association said, was to present its views and economic principles to as many groups as possible in a non-political fashion.

The talks were reportedly very successful, with the association receiving a number of congratulatory letters.

St. Louis Builder Named to WSB Construction Group

Joseph H. Vatterott, prominent St. Louis builder and chairman of the National Association of Home Builders' committee on employer-employee relations, has been named an alternate industry member of the Wage Stabilization Board's Construction Industry Stabilization Commission.

Joseph H. Vatterott

Vatterott is immediate past president of the Home Builders Association of Greater St. Louis. His family home building and lumber firm includes three sons and builds between 600 and 1,000 houses a year. He entered the building business in 1928.

Norman P. Mason Named Head of U. S. Chamber Construction Committee

Norman P. Mason, former president of the National Retail Lumber Dealers Association, has been appointed by the Chamber of Commerce of the United States as chairman of its 34-man Construction and Civic Development Committee for 1952-53. A director of the chamber, he is treasurer of the William P. Proctor Co., North Chelmsford, Mass.

Composed of building industry men from all sections of the country, the committee will consider factors affecting construction markets, government controls and planning of private and public projects. It will also concentrate on a program for better apprentice training in building trades, more intensive construction research and modernization of city planning, zoning and building codes.

Another former NRLDA president, Clyde A. Fulton, is a member of the committee. Among the other members are Alan E. Brockbank, president of the National Association of Home Builders; Joseph W. Lund, president, National Association of Real Estate Boards; Carl D. Franks, executive vice president, Portland Cement Association; William Gillett, vice president, Detroit Steel Products Co.; J. G. Jewett, second vice president, Prudential Insurance Co. of America; Frank E. McCaslin, president, Oregon Portland Cement Co., and Holman D. Pettibone, president, Chicago Title & Trust Co.

St. Louis Ex-Presidents Pool Talents

PAST PRESIDENTS of Home Builders Association of Greater St. Louis meet to form a council to help guide policies of the association. From left (sitting) are Joseph Leopold, R. M. Berkley, Erwin Schneider; (standing) Earl Bumiller, Walter Hellmuch, Clinton R. Schattgen (current president and council organizer), Clarence T. Wilson and Adrian Koch. Another council member, Harold A. Schulenberg, arrived too late to get in the photograph.

Dealer's Viewpoint

H. R. NORTHUP, Executive Vice President,
National Retail Lumber Dealers Association

Let's Greet the New Administration With Positive Legislative Proposals

Regardless of who wins the Presidential election, there are going to be a good many new faces in the upper level of our government next year. That means there also will be a good many new policies and programs.

Accordingly, it is highly important that the building industry decide what the Federal policy should be with respect to housing and construction. Unless the industry itself comes forth with a program which will best meet the needs of the public and the industry, it is most unlikely that anyone else will propose the right sort of legislation.

In the past, we have been accused time and again of always being *anti*. Our critics claim we always are *against* proposed legislation and never come forward with a constructive and acceptable program of our own. The charge is silly and grossly inaccurate, but it does teach us that there is much to be gained by taking the initiative.

If we wait for someone in the new administration to come up with a half-baked housing bill that we can't accept, we then are obligated to go up and oppose it. In other words, we once again have to be *against* a measure which is labeled as being in the public interest.

The best way to avoid that predicament is for the industry to decide what sort of legislation is needed, sell it to enough influential men in the new administration, and then be *for* that legislation wholeheartedly. In that way we put our opponents on the defensive, not ourselves.

Whether or not the new administration in Washington will be open-minded on the subject of housing legislation remains to be seen. At least, there will be some new faces and new minds to deal with—some new men who won't be blindly bound by the policies of the outgoing administration. If our proposals make sense, they will have a better chance of adoption than at any time in the last two decades.

In developing a new legislative program for housing and construction, we need to answer one two-pronged question: How much continued Federal financial assistance does the building industry need and are we willing to accept the continued regulation to which we are almost certain to be subjected if we get the type of Federal aid we ask for?

You just don't get Federal assistance these days unless, at the same time, you agree to accept some degree of Federal regulation. To get the benefit of FHA home loan insurance, for example, we have to observe a long list of construction standards and other requirements.

We meet the same general sort of situation wherever we turn for help. It is high time the industry gave this whole subject thoughtful and thorough consideration. Only then can we develop a program that will best serve both the public and the industry.

REFRESHING INTERLUDE during Long Island outing. From left, are Johannes P. Manhave Jr., builder of Rotterdam, Holland, who spent his vacation visiting new home projects in the New York metropolitan area and in New England; Garrett Winter, Eastern editor of AMERICAN BUILDER; Peter J. McKenna, merchandising counselor for several Long Island developers; Frederick W. Jackson Jr., assistant vice president, Dime Savings Bank of Brooklyn, and Winchell A. Royce, public relations representative of the institute.

Wisconsin Cheese, Gift Size

NO CHEESECAKE HERE, but a gift Wisconsin cheese for Alan Brockbank (center), National Association of Home Builders' president, from Wisconsin builders. Making presentation are (left) Glenn Webermeier, president of the Rock County Builders Association (Beloit), and Sid Dwyer, president of the Wisconsin (state) Builders Association. Occasion was the recent quarterly meeting of the state association, at which around 300 builders and guests heard Brockbank report on Washington events. The Beloit group was host.

Record 1,200 Attend Washington Jamboree

Well over 1,200 members and guests of the Home Builders Association of Metropolitan Washington attended the group's fourth annual summer "Jamboree," setting a new attendance record, James W. Pearson, executive vice president, reports.

Highlights of the day's program were sports events, a dinner, and a show in the late afternoon. Chairman and vice chairman, respectively, were Frank Calcara and J. Garrett Beitzell.

Long Island Builders' Outing Attracts 539

A crowd of 539 members and guests turned out for the Long Island Home Builders' Institute tenth annual summer outing at South Bay Golf Club, Bay Shore, N. Y., according to Charles J. Rorech, committee chairman.

Golf attracted 192 players, while others participated in softball, tennis and other sports. Following a buffet supper, awards chairman Walter Stackler distributed 178 prizes, averaging one for every three persons present.

Three New Jersey building officials

←

were among the guests: Carl T. Mitnick of Merchantville, N.J., NAHB regional vice president; Richard L. Hudson, president of the Home Builders Association of Metropolitan New Jersey, and John S. Wright, executive vice president of the New Jersey Home Builders Association. Johannes P. Manhave Jr., builder of Rotterdam, Holland, making his first visit to the United States in about 35 years, was another visitor.

two bathrooms of BRIGGS *Beautyware* IN COLOR

A MUST IN EVERY MODERN HOME!

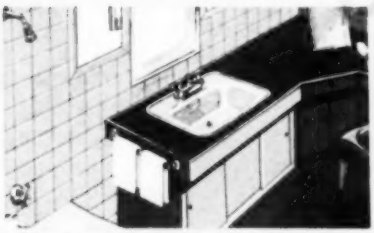
It's the big feature most wanted by today's smart home buyers

Show your prospects *two* bathrooms complete with gorgeous pastel Briggs Beautyware plumbing fixtures in your new homes—and watch their eyes light up! Here's a luxury feature sure to help you sell more homes—faster. Home buyers—even in the medium and low price brackets—know how it boosts convenience and increases resale value. They're especially pleased when they learn how little it adds to monthly payments.

Smart, new ultra-modern contours give Briggs Beautyware a top-quality look you can't miss. And the quality is built in! You'll find no finer plumbing fixtures anywhere than the acid-resistant porcelain enameled bathtubs and lavatories of rigid formed steel. There's a world of eye-appeal and lasting value, too, in the attractive vitreous china lavatories and water closets—as well as Briggs first-quality brass fittings.

When you draw up specifications, include *two bathrooms* of Briggs Beautyware—and build for better business!

Here's extra distinction—a custom-built bathroom!



Briggs flat-rim lavatories provide a truly modern touch—the built-in treatment so popular with today's home buyers. Economical and easy to install, they offer endless opportunity for unusual bathroom designs.

Millions of home owners see these national ads! Magazine readers throughout America are seeing Briggs Beautyware in all the glory of its four famous decorator colors—Sky Blue, Sea Green, Sandstone and Ivory—in addition to sparkling white. This advertising works for you!

BRIGGS MANUFACTURING COMPANY · 3001 MILLER AVENUE · DETROIT 11, MICHIGAN

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SELL THE *plus values* OF

FLINTKOTE INSULATION PRODUCTS

...and *catch the extra dollars coming in!*

BRIGHTEN UP any existing room . . . *in home, shop,* store, bar, etc. . . . with beautiful FLINTKOTE DECORATIVE INSULATION BOARD.

Smart colors and lovely textures are available to cheer up drab surroundings, create individual, distinctive effects and add new insulating value.

HOLD HEAT where it belongs . . . *inside in winter, outside in summer* . . . with FLINTKOTE FIBERGLAS* INSULATING WOOL.

Recommend this popular product for both new and remodeling jobs. Home-owners will welcome the comfort and improved health conditions it promises for the entire family. Also, the promise of saving enough in fuel, in a few years, to pay back the original cost.

*TM Reg. U. S. Pat. Off. Manufactured by Owens-Corning Fiberglas Corp.

BUILD DOUBLE COMFORT and fuel economy right into the walls . . . with FLINTKOTE INSULATION SHEATHING *outside* and FLINTKOTE INSULATION LATH *inside!*

Flintkote insulated walls make your houses structurally strong, more durable, tighter and quieter . . . cooler in Summer, warmer in Winter.

FLINTKOTE ... *the extra years of service cost no more!*

Get after your share of Flintkote Insulation Products dollars *now* . . . before Winter comes. For all the details, write The Flintkote Company, Building Materials Division, 30 Rockefeller Plaza, New York 20, N. Y.

FLINTKOTE BUILDING MATERIALS

THE FLINTKOTE COMPANY, *Building Materials Division,* 30 Rockefeller Plaza, New York 20, N. Y.

Michigan Builders Name Design Contest Winner

A 21-year-old graduate of the University of Michigan, Richard C. Donkervoet, took first prize of $800 in the recent architectural contest sponsored by the Builders Association of Metropolitan Detroit. The announcement was made by Robert M. Nelson, chairman of the association's educational committee.

Purpose of the contest, Nelson said, was to "encourage the creation of the best possible design for use in the 1953 Builders Show Ideal Home." It was open to students of architecture and engineering in Michigan colleges and universities. Three other prizes were awarded—for $400, $200, and $100.

CONTEST JUDGES spent several hours picking the winners. Examining the first prize entry here are (seated, from left) James M. Lange, chief of staff, Practical Builder magazine; Arthur V. Hansen, AMERICAN BUILDER architectural editor; (standing) Edward W. Pratt, Detroit association president, who was host to the jury; Lewis V. Sappington, home furnishings director for the J. L. Hudson company; Thomas H. Hewlett of O'Dell, Hewlett & Luckenback, architects; and Richard G. Hughes, treasurer of the National Association of Home Builders.

Planning Ohio Convention

A WELL-ROUNDED PROGRAM for the 9th annual Ohio Home Builders Convention was goal at this recent planning session in Cincinnati. Working out details are (from left) Joseph J. Robers, president of the Ohio Home Builders Association; Miss Ruth Weller, Home Builders Association of Greater Cincinnati staff; Earl W. DeLaittre, Cincinnati executive vice president; Raymond D. Sharp, convention general chairman; and A. H. Falace, OHBA executive vice president. State-wide meeting is set for November 23-25 at Cincinnati's Sheraton-Gibson Hotel.

Cortright's Column

FRANK W. CORTRIGHT, Executive Vice President, National Association of Home Builders of the United States

Outlook for '53 — Prosperity, Yes; Tax Relief, No

Will there be a market for a million new homes next year?

Will the American economy continue at its present high prosperity level?

Will the present rate of taxes be lowered?

Recent national surveys indicate that the answer to the first two questions will be "yes"—and to the last question "no."

Obviously, the market for new homes next year will depend upon the general prosperity and productivity of American business. Let's look at a few important facts:

1. The major prop of prosperity is the high volume supplied by defense and military production. The spending for arms in January was at an annual rate of less than $48 billion. Today, it is about $54 billion and by the end of 1952, the pace will be stepped up to $60 billion.

2. Companies which have poured many millions of dollars into new factories which have been standing idle will be working full-time by the end of this year. Our total industrial capacity has increased by $125 billion since the end of the war and will soon reach a total of $137 billion.

3. Strangely enough, the recent steel strike will help manufacturers in many lines. High inventories have been worked off and substantial shortages exist. Many businessmen and consumers who have been waiting for prices to drop are now coming back into the market.

The tax outlook is not so cheerful. The staggering sum of $65 billion will go this year to military or foreign aid. Next year, 78 cents of every tax dollar will be taken for a constantly expanding program to meet the threat of Russia's plans. Here is a graphic, simple picture of the Budget Dollar for next year:

WHERE IT COMES FROM	
Direct taxes on individuals	36 cents
Direct taxes on corporations	32 cents
New taxes and borrowing	17 cents
Excise taxes	11 cents
Customs and other taxes	4 cents
WHERE IT WILL GO	
Military Services	60 cents
International contributions	13 cents
Other expenditures	15 cents
Interest	7 cents
Veterans payments	5 cents

If the home builder of a hundred years ago had been able to look ahead to this time, he would have been mightily astonished at the colossal cost of our government and the high taxes imposed today.

In 1852, there were 33,000 Federal employees. Today there are 2,500,000 civilians on the Federal payroll and 3,630,000 working for state and local governments—a total of more than 6,000,000 persons.

Obviously, with one out of every ten employed persons working for the government, and with the staggering military program, there is no hope of the present heavy tax load being decreased for a long time to come.

However, as the armament program expands and new plants are built and work full-time, new homes will be in demand and people will be able to buy. Although the long range outlook and the volume of our national debt is far from encouraging, 1953 looks like a prosperous year for home builders.

Schrader Joins Plywood Firm

O. Harry Schrader Jr., managing director of the Douglas Fir Plywood Association for the past three years, has resigned to take an executive post with the U.S. Plywood Corp.

Prior to joining the plywood association, Schrader was director of the State of Washington Forest Products Institute and also associate professor of forestry at the University of Washington.

Show Committee Named By St. Louis Builders

Appointment of its 1953 home show committee has been announced by the Home Builders Association of Greater St. Louis. Members are builders Ralph S. Duke, Adrian Koch, Gerald Borgschulte, Ed Cassilly Jr.; lumberman Julius A. Seidel and flooring contractor Richard Phillips.

R. H. Morris Named Manager Ponderosa Pine Woodwork

R. H. Morris, formerly publisher of *American Builder*, has been appointed general manager of Ponderosa Pine Woodwork, F. E. Bissell, Jr., president, has announced.

R. H. Morris

Morris, who has spent over 23 years in building industry publication work, is well known for his association with the campaign which resulted in the enactment of the National Housing Act of 1934.

He was chosen by the Ponderosa Pine Woodwork Executive Committee for his wide knowledge of the building industry, and steps into his new position at a time when the association is launching its biggest and most vigorous program to date.

R. H. Morris has worked closely with such organizations as National Association of Home Builders and National Retail Lumber Dealers Association. He is well acquainted among leaders of the many state and regional lumber dealer associations.

Membership of 450 Is Target In Hartford Builder Contest

A membership of 450—140 more than the current total—is the goal of a member contest scheduled during October and November by the Home Builders Association of Hartford County (Conn.)

If the goal is reached, association leaders said, the member who signs up the largest number of recruits will be rewarded with an all-expense trip by air to Mexico City for himself and wife, a prize worth about $800.

For those who recruit as many as 10 new members the prize is a trip to the annual convention of the National Association of Home Builders in Chicago, including transportation, room and meals for four days.

Milwaukeeans Launch Travel Program

FLIGHT TO CLEVELAND was next move for these members of the Milwaukee Builders Association, first trip in a new program to study home building developments in other areas of the nation. At Cleveland they were guests of the General Electric Co. at its Nela Park lighting institute. Cooperating in this trip were several Milwaukee electrical firms.

Texas' Latest—Hypnosis for Builders

DOUBLE-BARRELED SPELLBINDING ACT was enjoyed by members of Home Builders Association of Dallas during meeting to plan their "Parade of Homes" observance of National Home Week. Holding the builders' attention are Nick Lucas, well-known crooner, and Joan Brandon, hypnotist and featured entertainer for the Home Week show.

Southern Millwork Group Names 1952-53 Officers

W. Horace Woods of Houston, Texas, was elected president of the Southern Sash and Door Jobbers Association at its recent 17th annual membership meeting in Memphis. He succeeds M. C. Davidson of Houston who has held the post for the past two years.

The new vice president is James M. Green, Orangeburg, S. C. Barney Gallagher of Memphis was reelected secretary-treasurer.

In his annual report, Gallagher announced that the association had added 18 new members and now represented 140 millwork jobbers in a 19 state area.

Visiting executive officers from other industry associations included Ormie Lance, National Woodwork Manufacturers Association; Adolph Pfund, Woodwork Jobbers Service Bureau; and D. G. Pilkington, Ponderosa Pine Woodwork Association.

W. Horace Woods

NOW, *Pushmatic*® protection for homes!

Attractive BullDog XD Electri-Center is convenient, safe. Handles all lighting circuits, plus 110V-240V range, dryer, attic fan and other service appliances, present and future.* Baked gray finish; can be painted to match walls.

Specify modern, new, home-proved BullDog XD Electri-Centers

(Successor to the Fuse Box)

Here's truly modern, safe circuit protection for the house, packed with advantages for home owners and builders alike.

BullDog's new XD Electri-Centers, featuring famous Pushmatic® circuit breakers, provide for every electrical requirement — lighting, appliances, service items*. Just one inexpensive, easy-to-install panelboard does away with a welter of fuse boxes, separate switches and costly, unnecessary wiring.

Lower installation cost and foolproof push-button control and protection please home buyers. The housewife especially likes the safe, simple way Pushmatic works. When lights go out, she merely looks for the individual Pushmatic that says "OFF," and pushes it "ON." Presto! The Pushmatic resets instantly and lights go on again (unless short or overload still exists).

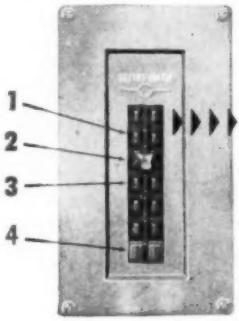
BullDog Pushmatic Electri-Centers offer the builder many advantages. They provide modern appearance and centralized efficiency that make the home more attractive and workable.

Get the full story today on these great new BullDog XD Electri-Centers. Contact your nearby BullDog supplier, or send coupon!

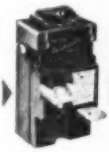
*Code (Art. 230) permits 6 subdivisions of main services.

ONE CENTRAL CONTROL FOR EVERY CIRCUIT

Internal split bus bar separates panel into two groups of circuits. Pushmatics in upper section (1) provide individual protection and disconnect for 1- or 2-pole appliances. Tie handle (2) joins two 50-amp. Pushmatics that serve as convenient Main Disconnect for all branch lighting circuits in lower section. Space for 8 to 10 lighting circuits (3), depending on XD model. Unused circuits (4) can be plugged with filler plates, used when needed. Two models: this one with 12 circuits plus Main Disconnect for lighting; one with 18 circuits plus Main Disconnect.



SAFER, AUTOMATIC PROTECTION



Here's safe, modern circuit protection; unmatched anywhere. Individual, interchangeable Pushmatic circuit breakers rupture circuits instantly whenever short or overload occurs. Foolproof. Trip-free. Give safe, automatic protection always. Guaranteed. Listed by Underwriters'.

JUST PUSH A BUTTON

No resetting. Just one PUSH restores service, unless trouble still exists. Never any fuses to buy, no inconvenience. Rugged Pushmatics bolt to bus bars in a jiffy, never shake loose, need no servicing. Available in 15-, 20-, 30-, 40- and 50-amp. ratings to meet all present and future loads.

BULLDOG

BULLDOG ELECTRIC PRODUCTS COMPANY

DETROIT 32, MICHIGAN • FIELD OFFICES IN ALL PRINCIPAL CITIES

IN CANADA: BULLDOG ELECTRIC PRODUCTS OF CANADA, LTD., TORONTO

PIONEERS IN FLEXIBLE ELECTRICAL DISTRIBUTION SYSTEMS

1902-1952 . . . SERVING INDUSTRY FOR 50 YEARS WITH FINER ELECTRICAL PRODUCTS

CLIP AND MAIL

BullDog Electric Products Company
7608 Jos. Campau Avenue, P.O. Box 177
Detroit 32, Michigan

Gentlemen:
Please send me free bulletin on your Type XD Electri-Centers for homes.

NAME _____

ADDRESS _____

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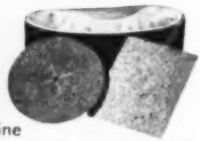
BEHR-MANNING
Products for the Builder!

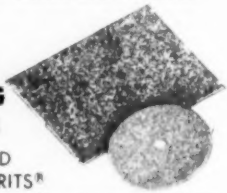
SANDING BELTS, DISCS & SHEETS



A complete line of coated abrasive products for all machine and hand sanding needs.

SHARPENING STONES
Best quality INDIA® & WASHITA* Bench stones, slips and files, also abrasive cut-off wheels for metals and ceramics.

FLOOR SANDING PAPERS



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Papers in rolls, discs and drum covers to fit all standard machines.

BEHR-CAT* TAPE
For masking, sealing, holding, etc. Sticks at the touch, peels off clean.

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LETTERS

Dealer Associations Laud Planning Guide for National Home Week

American Builder's valuable guide book, "How to Plan a Successful National Home Week in Your Community," was enthusiastically received by the lumber dealer industry. Typical comment offered by associations follows:

This is well done and tells the story adequately. If you can send us about ten additional copies of this booklet, we shall appreciate it.

Paul S. Collier,
Executive Vice President,
Northeastern Retail
Lumbermens' Assn.,
Rochester, N. Y.

I certainly shall be delighted to call that service of the *American Builder* to the attention of our dealers in our next bulletin.

W. J. Howard, Manager,
Montana Retail Lumbermens' Assn.,
Missoula, Mont.

We will be glad to "play it up" in forthcoming bulletins, and tell our dealers to write either to us or to your office for additional copies and information.

F. M. Torrence, Secretary,
Ohio Assn. of Retail Lumber Dealers,
Xenia, Ohio

My motto is "when you can't do better, copy the other fellows." And of course I couldn't improve on your book. I really am enthusiastic about this book, and as suggested in your last paragraph I think it will be valuable to any dealer. Incidentally, of course, it may cause the dealer who wasn't going to participate to change his mind.

Joseph V. Smith,
Mountain States Lumber Dealers
Assn., Denver, Colo.

We shall be happy to mention it in our bulletin. The thought occurs to me that if you could supply us with 400 copies of it, we would furnish one to each of our members.

Orrie W. Hamilton,
Executive Vice President,
So. Calif. Retail Lumber Assn.,
Los Angeles, Calif.

Thank you for the booklets you sent relative to National Home Week. We are giving this publicity in our Service Digest of August and September, which goes out to all lumber dealers in our four states. We are sure you will hear from many of our lumber dealers relative to the contest and to the booklets.

W. H. Badeaux, Secretary,
Northwestern Lumbermens Assn.,
Minneapolis, Minn.

I have reviewed the book and want to congratulate you upon the plans you have outlined for the dealers, depending upon the needs of the dealer's operation. I am planning to announce the booklet in our bulletin this week, and sincerely hope that several Florida dealers will take advantage of the material and suggestions you are making available to them to carry on a successful National Home Week in their communities.

Marie Bennett, Secy-Treas.
Florida Lumber & Millwork Assn.,
Orlando, Fla.

We shall be very glad to co-operate in every way possible in this program and will certainly make mention of it in our bulletin going to our members.

Hunter M. Gaines, Secretary,
Michigan Retail Lumber
Dealers Assn.,
Lansing, Mich.

I know that you have spent a great deal of time on this subject during the past seven or eight years and that, therefore, the suggestions are perhaps the best obtainable. I will be more than happy to write same in one of my early bulletins.

In the Atlanta area, we have a very efficient and aggressive association of home builders managed by Mr. Luther B. Stephens. He and his organization promote a very successful home show each year. I presume that you have them on your mailing list.

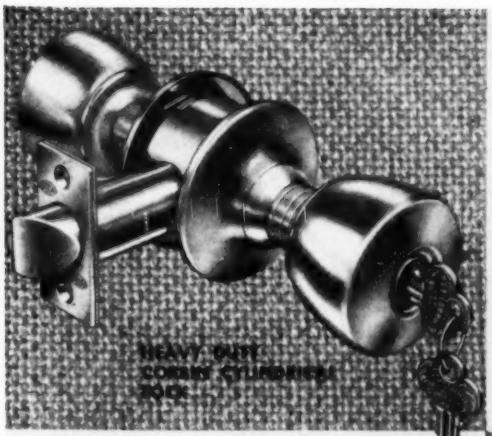
Joseph G. Rowell, Counselor,
Building Material
Merchants of Georgia,
Atlanta, Ga.

We will run an article in the next issue of Our Little Newspaper, regarding National Home Week, September 14-21. We hope it will stimulate some activity among our members.

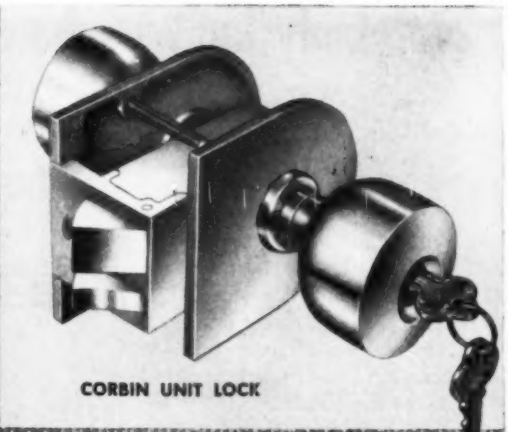
H. P. "Mac" McDermott, Secy.,
Wis. Retail Lumbermens Assn.,
Milwaukee, Wis.

We are commenting on this in our regular Report Letter, urging our members to participate, advising them of your part in it and where and how they may get the contest

(*Continued on page 40*)

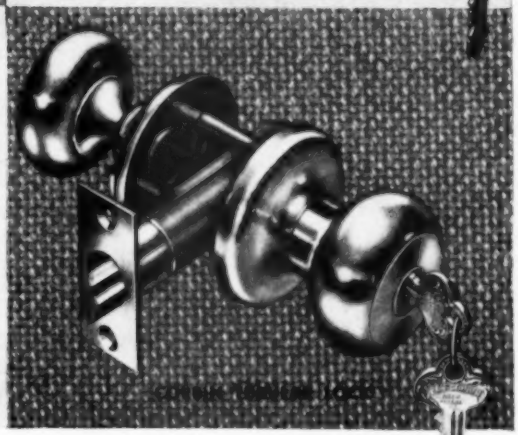


HEAVY DUTY CORBIN CYLINDRICAL LOCK



CORBIN UNIT LOCK

CORBIN MORTISE LOCK



CORBIN TUBULAR LOCK

Top value in every price range

has made CORBIN® the world's most widely used builders' hardware

For every building — from modest home to lofty skyscraper — there's a Corbin Lock to meet each requirement! On your next job, be sure you get an estimate from the Corbin Distributor in your vicinity. You'll soon see why *value-conscious* builders everywhere have made Corbin the world's most widely used builders' hardware.

P. & F. Corbin Division
The American Hardware Corporation
New Britain, Connecticut, U.S.A.

GOOD BUILDINGS DESERVE GOOD HARDWARE

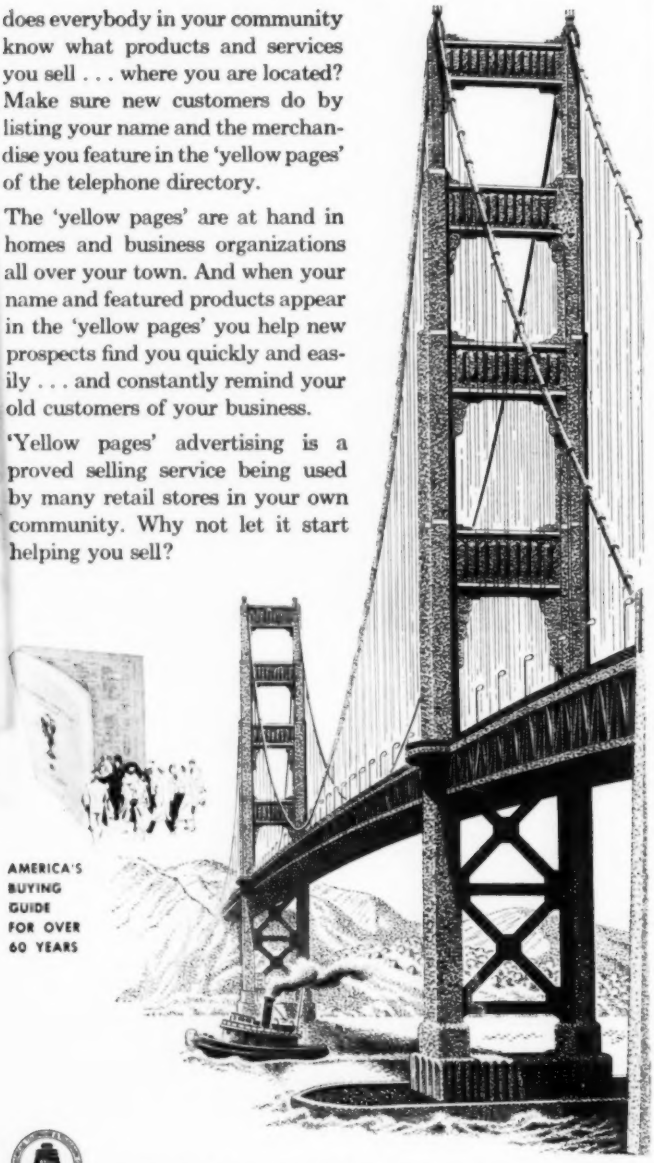
CORBIN

Everybody knows where the "Golden Gate" can be found . . . *but*

does everybody in your community know what products and services you sell . . . where you are located? Make sure new customers do by listing your name and the merchandise you feature in the 'yellow pages' of the telephone directory.

The 'yellow pages' are at hand in homes and business organizations all over your town. And when your name and featured products appear in the 'yellow pages' you help new prospects find you quickly and easily . . . and constantly remind your old customers of your business.

'Yellow pages' advertising is a proved selling service being used by many retail stores in your own community. Why not let it start helping you sell?



AMERICA'S BUYING GUIDE FOR OVER 60 YEARS

For further information call your local telephone business office

Letters . . .

(*Continued from page 38*)

rules and a copy of the booklet giving plans for participation. Here's hoping that National Home Week will be a real success this year as it so well deserves to be.

W. C. Bell, Managing Director,
Western Retail Lumbermens Assn.,
Seattle, Wash.

I hope that dealers will join in helping to make this National Home Week for 1952 quite outstanding and successful. This is a good piece of public relations for the retail lumber industry, and I hope that many dealers throughout the United States will join in making it the most successful we have had.

Phil Runion, Secretary,
Nebraska Lumber Merchants Assn.,
Lincoln, Neb.

Likes Ideas; Adopts them

Sir: I look forward eagerly to getting each month's issue, and believe me, I read it from stem to stern, so to speak, to see what's new, what's going on, new ideas. We have put many ideas into effect at the yard that we got from this magazine, and would adopt many more if we had sufficient room.

Ralph J. Morgan, Comptroller,
Sterling Lumber Co.,
Sterling, Colo.

Refuse Burner Design Under Fire

Sir: What's the sense of printing a design like the enclosed (Design for a Simple Concrete Masonry Refuse Burner, page 168, July, 1952). Someone's going to see it and copy it and curse the Portland Cement Association. Can't they do better than this?

First, it's too large.

Second, it's got to be cleaned from time to time and how are you gong to do that? I'd like the guy who designed it to clean it out; he'd learn something.

Third, it's got to have a cover. Otherwise, you've got a filthy mess and you can't light a fire in it.

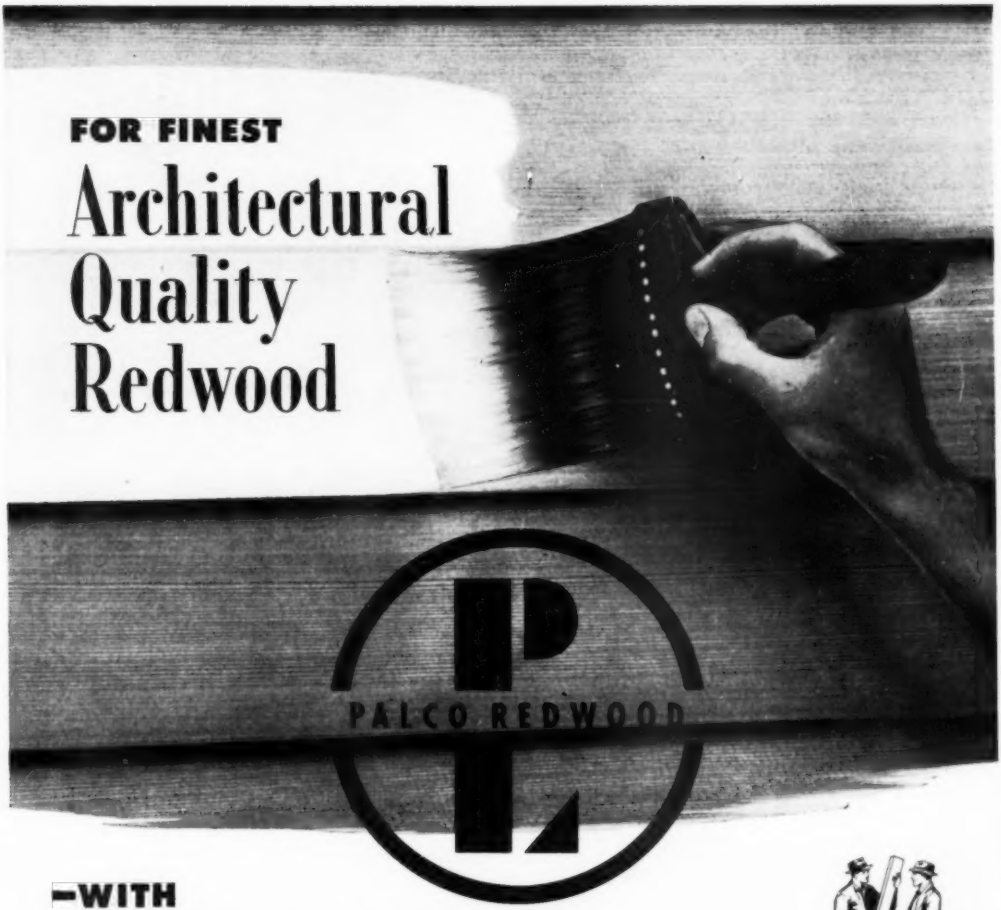
Fourth, the wire across the top is going to be convered with a greasy soot that is very difficult to get off one's hand, even with gasoline.

See what I mean?

M. J. Kaufmann,
Hamtpon, N.J.

▶ **With these charges now on the record, perhaps the Portland Cement Association will wish to defend its design?**

—The Editor



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Architectural Quality Redwood

—WITH HIGHEST PAINT RETENTION

PL *Architectural Quality* Redwood offers exceptional *paintability*. As a species, Redwood holds paint up to 35% longer—requires repainting less often—and suffers least when weather-protection becomes inadequate. Beyond this, PL brand Redwood provides the finest texture and grain for quality construction. Its superiority is deep-rooted in years of manufacturing perfection. So, when you buy—be sure to specify PL *Certified Dry Redwood—it's the best of the best.*

Note: *For an impartial analysis of Redwood's outstanding values, write for Data Book No. JG, today.*

PL Redwood is "tops" in these outstanding qualities

- ✔ High Dimensional Stability
- ✔ Low Swelling and Shrinkage
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- ✔ Greatest Durability
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Specify PL CERTIFIED DRY

THE PACIFIC LUMBER COMPANY

The best in Redwood—Since 1869

Mills at Scotia, California

100 Bush St., San Francisco 4 • 35 East Wacker Drive, Chicago 1 • 5225 Wilshire Blvd., Los Angeles 36

MEMBER OF CALIFORNIA REDWOOD ASSOCIATION

Let these
plain hard facts show
you how you'll save
with
CHEVROLET
Advance-Design
TRUCKS

CHEVROLET first in demand in value in sales

Fact No. 1

THEY LIST FOR LESS

Yes, Chevrolet trucks *list for less* than any other comparable truck capable of handling the same payloads. And yet, in a Chevrolet you'll find a combination of great truck features you can get in no other truck.

Fact No. 2

EVERY MILE AN ECONOMICAL MILE

For low fuel, oil and upkeep costs you can't beat Chevrolet's time-proved Valve-in-Head engines. Thriftmaster or Loadmaster, these engines give you top economy and long life to match the ruggedness of frame, axles and other units.

Fact No. 3

THERE'S ONE TO FIT YOUR JOB

Right down to wheels and tires, every Chevrolet truck is fitted to the job it has to do—*factory-matched* to operating conditions and payload. You don't have to waste money on "too much truck" or sacrifice efficiency with "too little truck" for your needs.

Fact No. 4

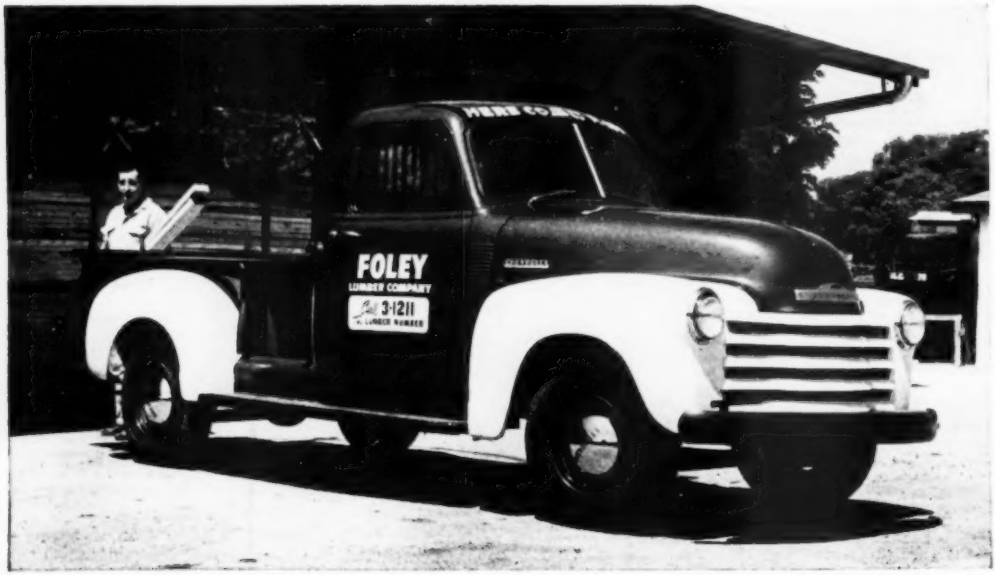
VALUE STAYS HIGHER LONGER

Chevrolet trucks traditionally bring more dollars at resale or trade-in than other makes costing about the same when new. You get more value with Chevrolet trucks from first to last. See your Chevrolet dealer.

CHEVROLET ADVANCE-DESIGN TRUCK FEATURES

TWO GREAT VALVE-IN-HEAD ENGINES—Loadmaster or the Thriftmaster—to give you greater power per gallon, lower cost per load • POWER-JET CARBURETOR—for smooth, quick acceleration response • DIAPHRAGM SPRING CLUTCH—for easy-action engagement • SYNCHRO-MESH TRANSMISSION—for fast, smooth shifting • HYPOID REAR AXLE—for dependability and long life • TORQUE-ACTION BRAKES—on light-duty models • PROVED DEPENDABLE DOUBLE-ARTICULATED BRAKES—on medium-duty models • TWIN-ACTION REAR BRAKES—on heavy-duty models • DUAL-SHOE PARKING BRAKE—for greater holding ability on heavy-duty models • CAB SEAT—with double-deck springs for complete riding comfort • VENTI-PANES—for improved cab ventilation • WIDE-BASE WHEELS—for increased tire mileage • BALL-TYPE STEERING—for easier handling • UNIT-DESIGNED BODIES—for greater load protection • ADVANCE-DESIGN STYLING—for increased comfort and modern appearance.

CHEVROLET DIVISION OF GENERAL MOTORS, DETROIT 2, MICHIGAN



New Silver Spring, Md. residence roofed with "Century" No. 5 Spanish Red Asbestos Shingles. **APPLICATOR:** L. A. Lee and **ARCHITECT:** Louis R. Moss, both of Washington, D. C.

Random width, thatched butts of "Century" No. 5 Shingles give appearance of American method, individual shingles. Available in Spanish Red, Surf Green, White and Black.

Here's a roof that helps you sell the house—

"CENTURY" ASBESTOS-CEMENT ROOFING SHINGLES

Looks good for life . . . You have the strongest kind of sales appeal when you use "Century" Roofing Shingles on a house—for here is a roof that is smart and rich-looking and *will stay that way for life!*

A variety of beautiful colors . . . The color is built right into these asbestos-cement shingles—they can't fade. So with several handsome colors to choose from you can achieve any effect you desire.

Bans fire, rot, termites . . . And it's a roof that can't burn, soak, or rot, and will never feed termites, or need painting.

Moderate in cost, goes on fast . . . You'll find "Century" Shingles are a *profitable* roof for you to put on—large units permit fast application. Ask your K&M Dealer about "Century" Asbestos-Cement Shingles. Or write us direct . . . we'll rush a reply.

KEASBEY & MATTISON
COMPANY • AMBLER • PENNSYLVANIA
America's first maker of Asbestos-Cement Shingles

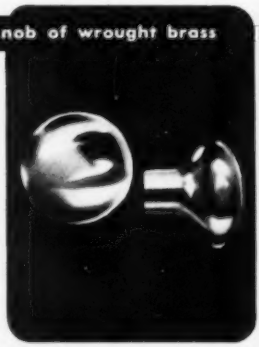
FACTS that you should know about practical, popular NATIONAL LOCKset

Patent Applied

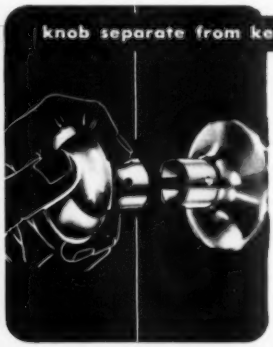
NATIONAL LOCKset offers feature after feature that contributes greatly to its enthusiastic acceptance. Here are shown just two of the many reasons why architects, builders, contractors, carpenters and home owners are saying "Make it that new NATIONAL LOCKset."

handsome one-piece knob of wrought brass

This exquisitely-styled, wrought brass knob is formed as one piece. Its beauty is accented by mirror-like finishes that are long-term varnish protected. Designed to fit the hand perfectly. Easy to turn.

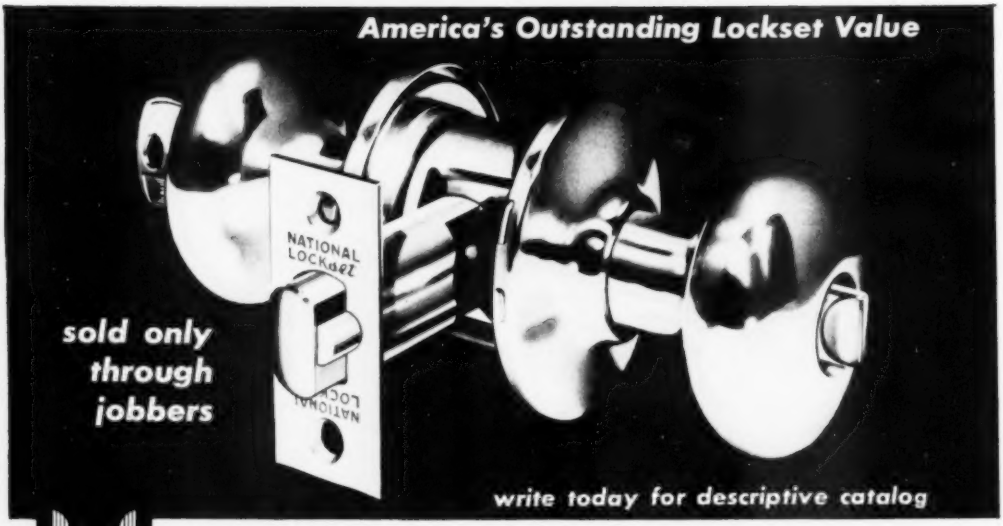


knob separate from key and lock mechanism



Forcing knob with wrench or tool will not open locked door. Knob is absolutely separate from lock mechanism. Knob slides on cam . . . then is firmly held in position by spring retaining pin.

America's Outstanding Lockset Value



sold only through jobbers

write today for descriptive catalog

distinctive hardware . . . all from 1 source

NATIONAL LOCK COMPANY

Rockford, Illinois • Merchant Sales Division

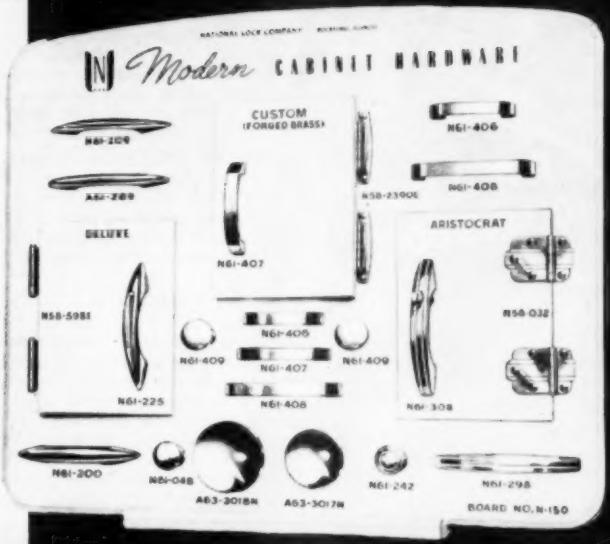
BACK AGAIN

NATIONAL LOCK no. 150

ask your jobber

DISPLAY BOARD AND ASSORTMENT

- One Complete Deluxe Board to Replace Several of Your Other Boards
- Reduces Inventory While Providing All Major Cabinet Hardware Items
- Only 21" Wide, It saves Counter space . . . Makes space More Profitable
- Appeals to Those Who Want the Finest . . . Increases Per Unit Profit



Superlative Quality . . .

Items in this assortment have been carefully selected as the ultimate in National Lock quality. Included are only the very finest . . . the best hardware available anywhere. Open stock, if desired. Ask your jobber for details.

- Forged Brass Hardware
- New Type Concealed Hinge
- Beautiful Concave Knobs
- Smart Die-Cast Handle
- Other Fast-Selling Items

NATIONAL LOCK COMPANY

ROCKFORD, ILLINOIS • MERCHANT SALES DIVISION

DISTINCTIVE HARDWARE . . . ALL FROM 1 SOURCE

for more room space
better design
lower building cost

FOR WARDROBES AND CLOTHES CLOSETS

FOR BETWEEN ROOM DOORS

FOR ROOM DIVIDERS

use

RA-TOX FOLDING DOORS

Make your new homes and home remodeling jobs easier to sell, with Ra-Tox Folding Doors. Give your customers the features they want . . . more useable wall and floor space . . . greater beauty . . . and lower cost. Woven open-slat design provides air passage through door, vital for slab floors and proper heating and air conditioning. Supplied with all hardware and finished in your choice of colors or natural wood.

See your dealer or write for information and Bulletin 406.

The **HOUGH SHADE** CORPORATION
Ra-Tox Division
1044 Jackson Street
JANESVILLE • WISCONSIN

ON and OFF the RECORD

PAINT—Sales are reported to be up about 11 per cent over 1951. While this is no doubt gratifying to manufacturers and distributors of paint, because it is a trend in the right direction, it appears to an observer of paint needs as just a drop in the bucket. The figures should be closer to a gain of 100 per cent.

GREAT UNPAINTED—An automobile or train trip almost anywhere in the United States will convince a casual observer that the country rightfully can be called America, The Great Unpainted. There was a reason in the depression days. People did not have the money to keep urban and farm properties adequately painted. There was a reason during and immediately following the war. There wasn't enough paint.

MONEY AND PAINT—Now, in a period of more and easier money than at any time before, every property owner can afford paint. Production facilities are adequate for a greatly increased market for exterior paint.

WHAT'S WRONG?—Everywhere one can see new and expensive automobiles in front of, and television aerials on top of houses that are long overdue for repainting. In many cases these houses are showing signs of decay because the protective coat of paint is worn away. In all cases they are eyesores to the community, and they should be to the owner.

BAD SELLING—The same fellow who will equip himself with expensive transportation, clothing and television allows his house to rot away, or present the appearance of a sun-drenched weed patch. The paint industry has not sold people on the idea that well maintained paint surfaces are a badge of smart living and economic sense.

REGISTER AND VOTE—As an admonition that is almost a cliche by this time. Everybody in print and on the air is driving home "Register and Vote" with insistence. It's a good thing to drive at, too, because it never was more important.

THE CANDIDATES—In both parties there were spirited, heated, and at times vicious contests for the presidential nomination. As a consequence, very large minorities in both parties were made unhappy at the outcome. Important figures and imposing minorities in both parties have said they will bolt, or just sit at home on election day. Both attitudes are un-American and short-sighted. The writer of this column happens to be one of those who was made very unhappy at the choice of the party to which he leans.

THE ANSWER—There is only one answer. That is for everyone to choose one of the two candidates, even though that choice is on a basis of the lesser of two undesirables, and vote accordingly, and then most importantly, to vote wisely on the congressional candidates. After all, the president, if we can get him in his proper perspective, is only the executive officer charged with executing the laws he gets from the Congress. The president is not your most important consideration. ***Your Congressman is.***

DON'T SULK—Sulking and staying away from the polls solves nothing, abdicates the right of franchise, and gives those of opposite political views an opportunity to pack Congress with the kind of people you do not want there. So, we say it again. ***Register and Vote!***

HERE'S AN IDEA—From Jim Pearson, the executive director of the Home Builders Association of Metropolitan Washington, comes the suggestion that every builder make known his views on housing to his congressional candidates. Also, that every builder ask the candidates what their views are.

INSTITUTIONAL ADS—Builders Association of Metropolitan Detroit recently ran a full-page advertisement in the Detroit Free Press. The ad asked no one to buy anything. It did clarify the current restrictions under Regulation X. It announced NATIONAL HOME WEEK, and carried the signatures of the builder members of the association. It is the kind of institutional advertising that improves public confidence in the industry, and dignifies the association and its accomplishments.

LOS ANGELES TIMES—This newspaper carried its own institutional advertisement in which the newspaper itself went out to sell home ownership. It undoubtedly was designed to gain the good will of the home building industry, and probably achieved its objective.

23rd AMENDMENT—Supporting the proposed 23rd amendment to the Constitution, assembly joint resolution No. 4 was offered to the California Legislature recently.

(*Continued on page 48*)

For A Better Job...

CHASE® COPPER WATER TUBE

Put it here!

What could be better than long-lasting Chase Copper Water Tube for domestic hot and cold water lines! It is made in hard and soft temper...straight lengths and long coils. Type L hard temper is especially suited for new construction. Soft temper comes in 60 and 100′ coils that can be snaked behind walls and under flooring for replacement jobs.

Put it here!

For underground installations there's nothing better than Chase Type K. Copper Water Tube. Type K in soft temper can be easily bent around obstructions...it moves with the earth and settling won't harm it. Long lengths up to 100 feet in coils make few fitting connections necessary. Chase Copper Water Tube resists corrosion, does not clog with rust.

Chase® BRASS & COPPER

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• The Nation's Headquarters for Brass & Copper

Albany†	Cleveland	Kansas City, Mo.	New York	San Francisco
Atlanta	Dallas	Los Angeles	Philadelphia	Seattle
Baltimore	Denver†	Milwaukee	Pittsburgh	Waterbury
Boston	Detroit	Minneapolis	Providence	
Chicago	Houston†	Newark	Rochester†	(Tubes
Cincinnati	Indianapolis	New Orleans	St. Louis	office only)

Pella

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WINDOWS

MAKE CUSTOM WINDOW EFFECTS FROM STOCK-SIZE UNITS

Pella stock-size casement units can be combined into hundreds of custom-like effects of varying width and height. Installation cost is minimized because Pella wood casements are factory-fitted and assembled, individually packaged, ready to place in rough wall openings.

CHECK THESE CONVENIENT *Pella* FEATURES

ROLSCREENS — Pella casements are equipped with inconspicuous inside Rolscreens that roll up and down like window shades. Rolscreens operate with finger-tip ease. Never need painting, storing, putting up or taking down.

DUAL GLAZING AND WEATHERSTRIPPING — All Pella casements are dual glazed to insulate against winter cold and summer heat. Sash is weatherstripped on all four sides to eliminate drafts.

EASY TO OPERATE — Pella's patented hinge design and construction assure easy operation.

FIT ALL TYPES OF ARCHITECTURE — Pella casements fit snugly into wood, frame, brick, stone, brick veneer, etc. They convey dignity and stateliness to Colonial architecture . . . emphasize Cape Cod "coziness" . . . lend breadth to Modern or Ranch styles.

3-LIGHT WIDE UNIT — Only Pella builds these wide casement units, made possible through Pella's patented hinge design, superior sash construction and steel inner frame. Ventilating windows have glass sizes up to 24" wide by 60" high!

FOR FURTHER INFORMATION See Sweet's Builder's File 17c/ROL or mail the coupon today for a complete set of Casement Details No. 1050M.

ROLSCREEN COMPANY, Dept. D-45, **Pella, Iowa**
Without obligation, send me "PELLA CASEMENT Installation Instructions in Full Size Casement Details No. 1050M."

Name _____
Firm _____
Address _____
City _____ State _____

PELLA CASEMENTS • ROLSCREENS • VENETIAN BLINDS

On and Off the Record

(Continued from page 46)

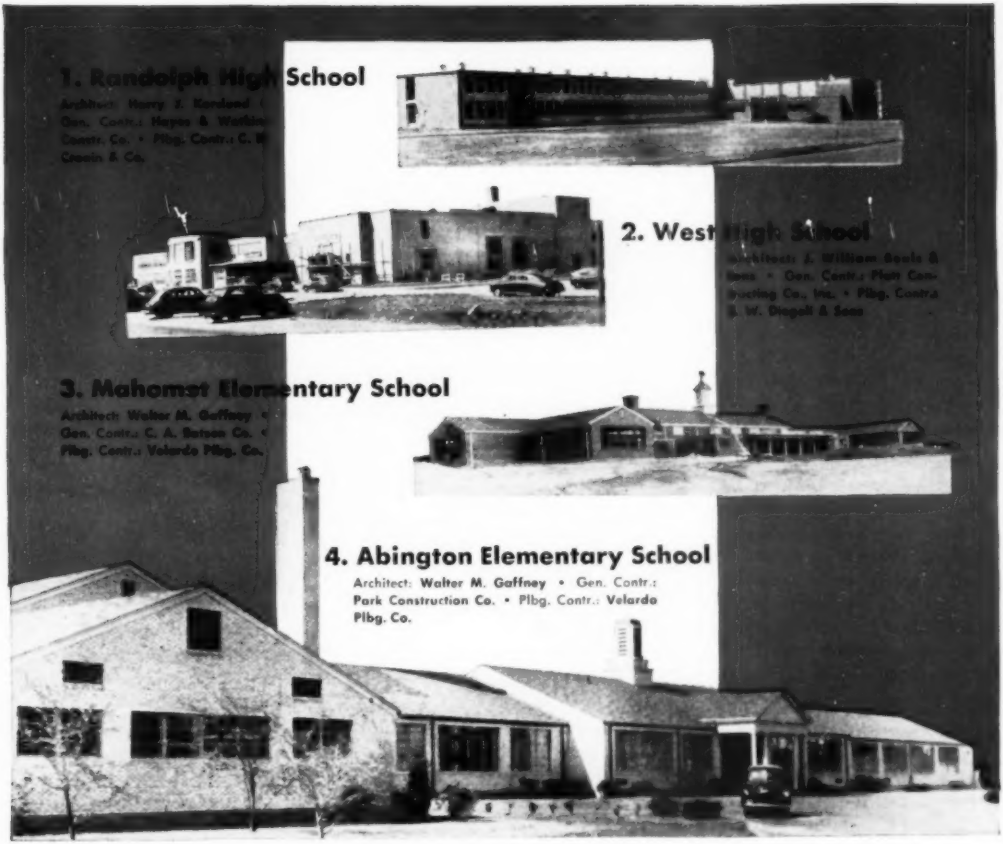
THE SUBSTANCE—In substance, the resolution would forbid the government to engage in any business or other professional or commercial enterprise except as specified in the Constitution, and would stipulate that the terms of any agreement by treaty or otherwise with a foreign power may not supersede the laws of the United States.

CONGRESSMAN GWINN—This New Yorker, a vocal champion of free private enterprise, followed the California action by embodying the sense of the resolution in House Joint Resolution 491, due to come up for consideration at the next session. 491 is worth the careful consideration of every builder and dealer. Copies are available through your Congressman.

LEARN BY DOING—There's nothing new about the idea of having students build houses—high school students, that is. The senior students in manual arts in at least two Illinois high schools have been building houses for years, and in some cases, designing the houses. But we've yet to hear of a similar activity in one of the four-year college courses in light construction.

OPPORTUNITY—Is there any reason why senior students in these courses should not design, build and superintend, advertise and sell one or more houses or light construction campus buildings as a final laboratory project in which all types of majors could participate? Here is a chance to provide actual on-the-job experience for potential material buyers, land planners, realtors, mortgage financiers, retail lumber dealers, builders, job superintendents, advertising and promotion men, home designers, salesmen and others. Guess we'll send a marked copy of this column to Professor Bill Lloyd at Michigan State College, and see what he has to say. It's a sure bet that whatever he has to say will be very much to the point one way or the other.

BUILD IT YOURSELF—Whether we like it or not, there is a lot of it, and no decrease in sight. There are two questions. The first is, is it a trend or just a passing fad. If it's a passing fad there's no need to pay any attention to it. If it's a trend, what should builders do, fight it, disregard it, or aid it. It's our opinion that we're going to see a lot of it for a long time, and that it cannot be disregarded. And nobody yet has ever successfully fought an economic trend.



School after school *requires* • *RICHMOND*

Today's modern school requires sturdy, efficient, well-designed plumbing fixtures. That's why these 4 new schools are equipped throughout with Richmond. Architects, Builders and Plumbing Contractors know Richmond's "whiter-white" lavatories, drinking fountains, service sinks, water closets and urinals stand up to hard usage...stand out in appearance...are designed for easy sanitary maintenance.

Why not rely on Richmond's complete line for all your institutional and industrial plumbing requirements?

RICHMOND RR PLUMBING & HEATING

RICHMOND

RICHMOND RADIATOR CO.—AFFILIATE OF REYNOLDS METALS CO.

Richmond Radiator Company AB-10
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Please send me additional information on Richmond fine plumbing fixtures. No obligation, of course.

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We are ☐ plumbing wholesalers ☐ plumbing contractors ☐ building contractors.

Here's why Armstrong offers you 2 types of acoustical materials

Some people buy acoustical ceilings because they want maximum noise quieting. To others, economy is the primary consideration, with noise reduction a desirable extra feature. That's why Armstrong offers you both types. Here's the difference.

1. Armstrong's Cushiontone is a perforated wood fiber acoustical material with extremely high sound-absorbing efficiency. It's ideal for doctors' offices, conference rooms, radio stations, smart shops . . . any area where maximum sound absorption is desired. Cushiontone's special low-density composition and its deeply drilled perforations absorb as much as 75% of the sound that strikes its surface. Its smooth two-coat white paint finish is both washable and repaintable with no loss of acoustical efficiency. Popular sizes: 12″ x 12″ x ½″ and 12″ x 12″ x ¾″.

2. Armstrong's Perforated Temlok Tile is a lightweight, structurally strong ceiling tile that doubles as an acoustical material. Perforated Temlok Tile goes up fast, saves labor costs, and makes short work of installations like supermarkets and big stores . . . places where large areas are to be covered at minimum labor expense. Armstrong's exclusive Lok-Bevel Joint speeds installation and conceals nails or staples. Two coats of paint help give Armstrong's Perforated Temlok Tile a smooth finished surface. It's available in two colors and sizes: 12″ x 12″ x ½″ in Snow White and 16″ x 16″ x ½″ in Light Ivory.

Don't overlook this one point: *both* of these materials are Armstrong's. People everywhere know Armstrong as a leading manufacturer of acoustical materials. Armstrong's field representatives, with years of experience in solving acoustical problems, are at your disposal, too.

For complete information and samples, call on your Armstrong lumber dealer. He can give you ideas on how to get more acoustical jobs, or you can write directly to the Armstrong Cork Company, 1610 Ocean Avenue, Lancaster, Penna.

CUSHIONTONE

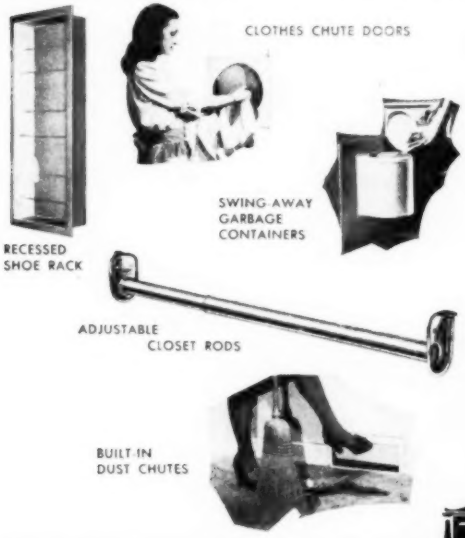
PERFORATED TEMLOK TILE

ARMSTRONG'S BUILDING MATERIALS

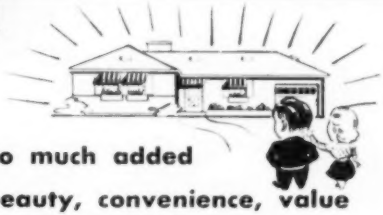
TEMLOK® MONOWALL® CUSHIONTONE® INSULATING WOOL HARDBOARDS

LEIGH BUILDING PRODUCTS

. . . for that home-selling final touch!



Leigh BUILDING PRODUCTS



So much added beauty, convenience, value

. . . FOR SO LITTLE!

For new homes or remodeled jobs, builders the country over agree Leigh All-Metal Building Products provide those final touches that add real "buy appeal" for both Mr. and Mrs. Home Buyer. The Leigh Line is complete with each unit built to fill a definite need in a more attractive, efficient manner . . . and mass produced in a modern factory at lowest possible cost. Join the thousands who know from experience the sales power of Leigh products. Just one trial will convince you!

See your Leigh jobber or write direct for beautifully illustrated catalog 52-L showing the complete Leigh Line.

LEIGH BUILDING PRODUCTS DIVISION

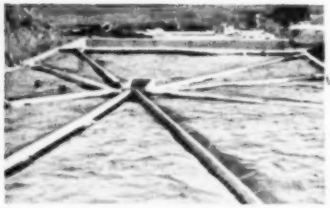
AIR CONTROL PRODUCTS, INC.

COOPERSVILLE LEIGH AVE. MICHIGAN

Praver & Sons Picks for Giant Midwest

"Biggest value per dollar for both builder and homebuyer"

—William Praver, Praver & Sons



HOW THE BUILDER SAVES—

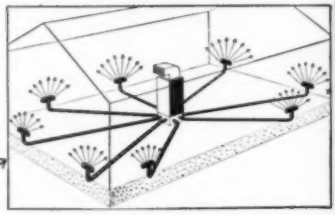
About $50 per house will be saved in Praver homes in construction costs alone! Trenching for G.E.'s 4" ducts is simpler and requires less concrete for slab. Fewer tie-downs per duct are needed. More savings result from the shallower pit required below the G-E Downflow Furnace used in these homes.

G.E.'s unique *Air-Wall* Registers are wall-type, not floor-type as in ordinary perimeter systems, so flooring does not have to be fitted around registers. Makes a stronger floor, too, and saves expense in slab construction.

WHY HOMEBUYERS ARE ATTRACTED—

Furniture can be placed wherever desired—drapes can be hung right up against registers—because G-E *Air-Wall* Registers *diffuse* air upward—don't blast it straight out. Carpets don't have to be cut because no floor registers are used. No cold drafts even near picture windows. Warmth is uniform throughout home.

No igloo walls or icy floors! G.E.'s unique *Air-Wall* Register blankets cold wall surfaces with warm air so they *radiate* heat. Every system includes G-E quick-*comfort* Warm Air Furnace, space-saving duct system, and G-E *Air-Wall* Registers.



G-E *Air-Wall** Heating Housing Project

Big construction savings...extras that spark home sales...and popularity with homebuyers...made G-E the choice for huge Kansas City Project

When Praver & Sons planned their exciting new 2400-home Ruskin Heights, they aimed at rock-bottom prices—$9500 and $9999—and sky-high buyer appeal. That's why they picked the sensational G-E *Air-Wall* Heating System for every home. It attracts customers because it gives extras like warm air *plus* radiant heat from one system...warm floors and outer walls...uniform heat everywhere. It gives the builder the proven acceptance of the G-E name. Yet it actually cuts builder costs! At Ruskin Heights, it is estimated, $50 per house will be saved in construction cost alone! If you are squeezed between high costs and reluctant customers, take advantage of G-E *Air-Wall* Heating. You'll be able to put your heating to work selling houses. *Extra! G-E Summer Cooling can be added easily at any time—at low cost!*

"We chose G-E *Air-Wall* Heating for its high value per dollar to builder and buyer and its high customer acceptance," says William Praver (third from left) of Praver & Sons. Present at order-signing were (left to right): C. W. Schumacher, General Heating & Cooling Co., G-E Distributor; Dan Truog, Truog & Nichols, Inc., heating contractors; Mr. Praver, and J. S. Dukelow, Truog & Nichols, Inc.

*Reg. trademark of General Electric Co.

FREE

Please send free data and booklets on
☐ G-E *Air-Wall* Systems
☐ G-E Cooling Systems

General Electric Company, Air Conditioning Division, Sec. AB-16, Bloomfield, N. J.

NAME .....

COMPANY .....

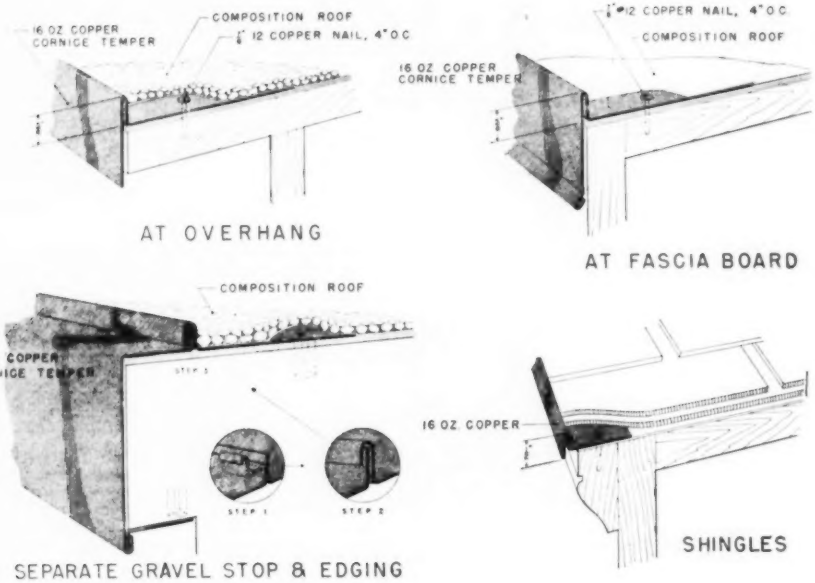
ADDRESS .....

CITY ..... STATE .....

AIR WALL
HEATING and COOLING

GENERAL ELECTRIC

TECHNICAL GUIDE for Builders and Craftsmen



Suggested Sheet Metal Details

DETAILS shown on these pages apply primarily to buildings of modern or contemporary design, where emphasis is on vertical and horizontal projections. These include gravel stops, roof edgings, sun shades and canopies.

The flashings around chimneys for houses of modern design may be on a roof that has a pitch of less than three inches per foot—almost flat. The flashing for such a chimney can be simple and yet adequate.

ROOF EDGINGS

The drawing showing an edging at the overhang is for a simple type of construction with wood sheathing and built-up composition roofing. The copper flashing is made from a strip six inches wide with a 3½ inch flashing flange, a ⅝ inch gravel stop, and a drip edge extending at least ¼ inch below the bottom of the sheathing. Normally these flashing strips are made in eight foot lengths, soldered and securely nailed through the felt to the roof sheathing.

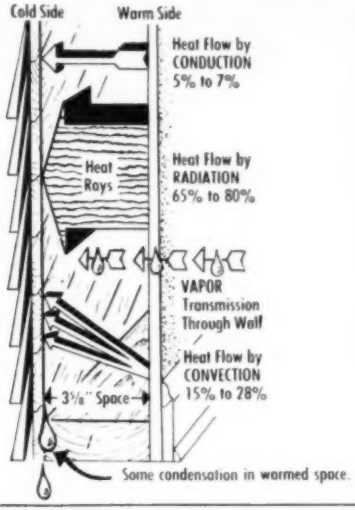
The edging at the fascia board is similar to that of the overhang, except that the outer face of the edging is slightly deeper for architectural effect and the bottom edge is turned back to form a hem which is canted outward to serve as a drip.

The drawing showing a separate gravel stop and edging for a built-up composition roof on a concrete deck is more decorative, and is designed to show a minimum of waviness and buckling. The facing strip is free to slide by virtue of the clinch lock seam at the top and bottom edges. The standing seam at the top is rolled toward the outside and serves as a gravel stop for the flashing strip that is built into the plies of the composition roofing. The seam at the bottom is formed of a simple clinch lock joining the fascia with a stiffening strip at the soffit to insure a trim appearance and to provide a drip at bottom.

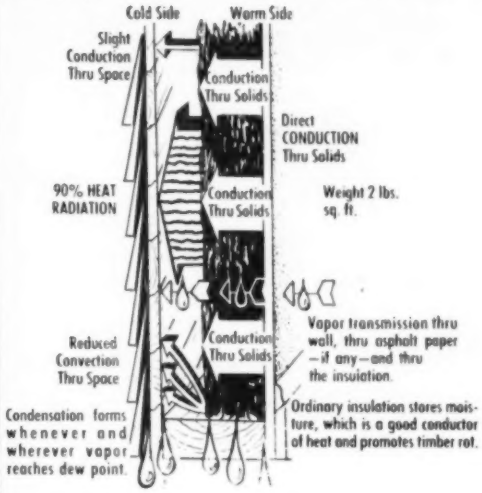
For shingle roofs, an edging strip of copper as shown on the drawing for shingles is suggested. This edging strip assures alignment of the shingles at a gable and at the end of every slope. Such a strip will save time that would otherwise be consumed in trimming the shingles, whether they be of slate, asphalt composition or wood.

(*Continued on page 56*)

Heat & Vapor Flow Thru Air Spaces In Non-Insulated Wall



Heat & Vapor Flow Thru Wall Space With Ordinary Insulation



For more efficient cooling and heating systems...

Performance failure by insulation unduly burdens heating and air-conditioning plants. Insulation specification is too often automatic.

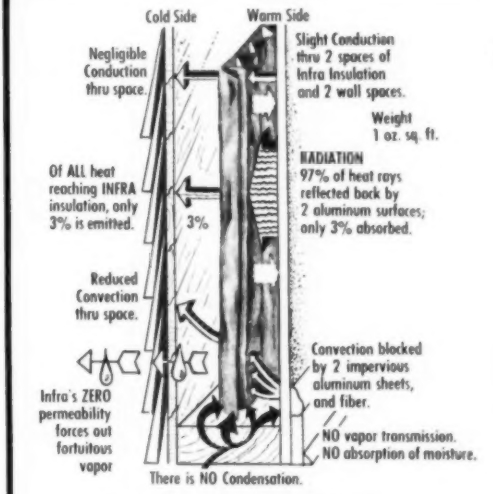
Ordinary insulation also promotes condensation, absorbs and retains moisture. Wet, it is an excellent conductor of heat, and promotes timber rot. Wet insulation tears away at points of fastening, for instance in crawl spaces, leaving the structure uninsulated.

Loose fill insulations settle down, become denser and better conductors of heat. The spaces they leave empty are deprived of the insulation originally planned.

Not all insulations perform with the same efficiency. (Consult the Chart of Thermal Insulation Values in Schwartz's "Simplified Physics of Vapor & Thermal Insulation," sent free on request. The chart shows at a glance *k*, C, R, and U thermal factors, of all insulations, of all thicknesses, their weights, densities, etc.)

Multiple accordion aluminum's rating is especially good, and permanent. Of all heat transferred through structural spaces, 50% to 80% is by Radiation, all but 5% of the rest is Convection. Multiple accordion aluminum sheets throw back 97% of the heat rays which strike them. They block Convection. Their insignificant mass, with multiple air space compartmentation, defeats Conduction.

The permeability of multiple accordion aluminum to water vapor, to cold and warm air and other gases, is zero. Its structure permits no dew-points to be reached on its surfaces or within it. It neither sustains nor retains moisture. It cannot deteriorate, is flame-resistant, repels insects, rodents and mold. Its commercial forms are Infra Insulation, Types 6, 4, and 4 Jr.



Heat & Vapor Flow Thru Wall Space With Multiple Accordion Aluminum

INFRA THERMAL FACTORS. TYPE 6

Up-Heat	C.089, R 11.23	= 4⅗"	dry rockwool
Wall-Heat	C.073, R 13.69	= 5⅝"	dry rockwool
Down-Heat	C.044, R 22.72	= 9"	dry rockwool

INFRA INSULATION INC.

525 Broadway New York N. Y.

Infra Insulation, Inc., 525 Bway., N. Y. C. Dept. B-10
Please send FREE "Simplified Physics of Vapor and Thermal Insulation."
Name _____
Firm _____
Address _____
☐ Send Prices of Infra Insulations ☐ Send Sample

Suggested Sheet Metal Details

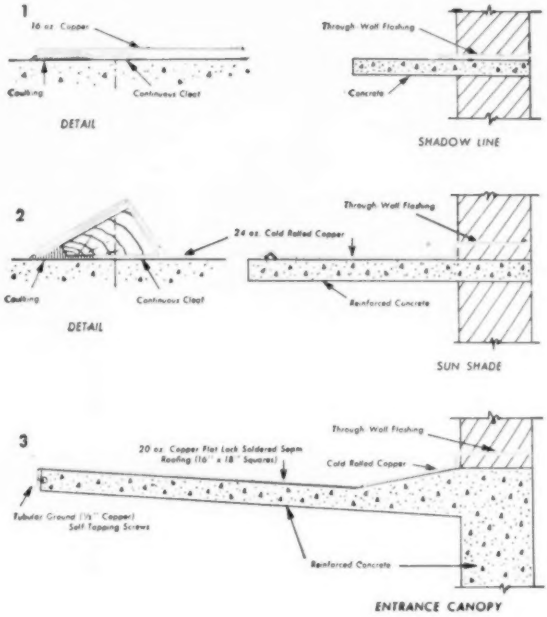
(Continued from page 54)

COVERED SUNSHADES AND CANOPY

For small projections that are intended principally for architectural shadow lines as shown on drawing No. 1, through wall flashing can be used to advantage. The 4-inch plain selvage on the drain side can be locked to a continuous cleat and sealed with white lead paste or caulking compound.

For larger projections that serve as sun shades, it is desirable to cover the entire top surface with copper. The copper covering is 24-ounce cold rolled stock.

In drawing No. 3 an entrance canopy is roofed with regular 20-ounce copper squares with a drip edge around the outline of 20-ounce copper. This involves placing a ½-inch copper tubing in the form before the concrete is poured to serve as a ground. Drill a hole in the wall of the tubing and secure copper with sheet metal screws. Copper roof covering is made tight at building by means of through-wall flashing.



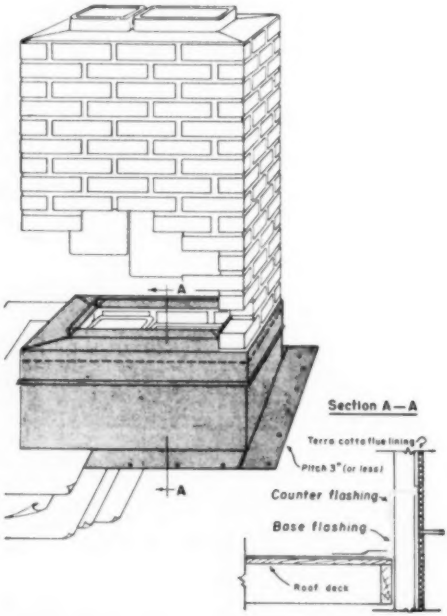
CHIMNEY FLASHING ON FLAT ROOF

Base flashings for chimneys on flat roofs must be soldered at all joints. All soldering should be done on the reverse side where it can not be seen.

Where the masonry thickness of the chimney is 4 inches or more, it is important to carry the copper counter flashing through the masonry and turn it up about an inch at the outer surface of the flue. The copper for the counter flashing, like that for the base flashing, should be of cornice temper and the joints should be locked and soldered so that any percolation of water from the chimney above will be intercepted and drained over the outside of the base flashing onto the roof.

The base flashing for small chimneys is made up of 16-ounce copper, cornice temper and 20-ounce copper for large chimneys.

Drawings courtesy The American Brass Co.



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TECHNICAL GUIDE for Builders and Craftsmen

Tile "Leveling Gauge"

This "leveling gauge" can be used when applying butt-jointed tileboard with adhesive.

Figure A illustrates the simplicity of this gauge. It consists of a piece of lightweight, straight-grained wood approximately 1x6x24 inches in size with a cleat on one end. The cleat must be ⅛ inch thicker than the tileboard being applied. That is: ⅝ inch for ½ inch tileboard, or ⅞ inch for ¼ inch tileboard.

To start the application with this gauge, starting strips are fastened in proper position to conform to the desired tileboard pattern. These strips should be of the same thickness as the cleat on the gauge. Figure B illustrates placing the starting strips.

In placing the first row of tileboard, the cleat is to rest against the backing surface and the other end against the starting strip. With sufficient pressure to press the tileboard unit in place, the face of the unit can be perfectly aligned. Figure C shows this operation.

After the first row of tileboard is placed, the same general procedure is followed except that the uncleated end of the gauge rests against a tileboard unit previously placed in position. Figure D shows this use of the gauge in the tileboard field.

Data and photographs courtesy Insulite Division, Minnesota and Ontario Paper Co., Minneapolis, Minn.

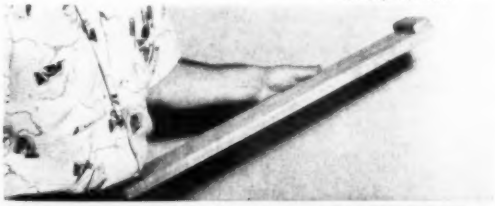
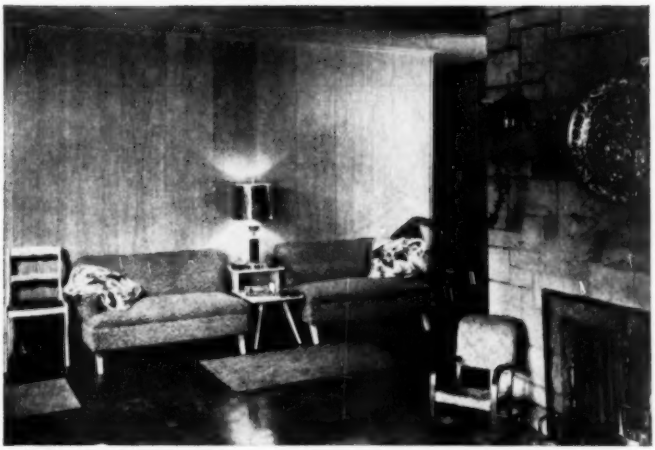


FIGURE A

FIGURE B

FIGURE C

FIGURE D



Beautiful Oak Plankweld walls in the living room of one of the Scannell Real Estate Agency homes add that special touch which instantly turns a house into a home. A touch that instantly closes the sale.

"Weldwood® Plywood Paneling sure sold my houses fast!"

says Mark E. Scannell, Muscatine, Iowa builder

"We chose your products," wrote Mr. Scannell, President of the Scannell Real Estate Agency, "and are still using them because they give us the kind of construction we can be proud of. They give us what we desire in dry wall construction, strength, permanent beauty, ease and speed of installation.

"We started using your products in our smaller homes, using Plankweld® throughout with the exception of the kitchen and bath. Mahogany Plankweld was used in the living room and one bedroom. Birch Plankweld was used in the master bedroom.

"Plankweld was *so* beautiful . . . so economical . . . so effective in selling these smaller homes, we felt that it would also be the ideal material to use in our two new larger homes in the $25,000 bracket.

"In one of these houses the only separation between the living-dining room and the kitchen was the stone fireplace. Here we emphasized the separation by the use of different wall treatments. Oak Plankweld was used on the walls of the living-dining room area.

"In the other house, we used Birch Plankweld in the living room. Two of the bedrooms have walls of Weldtex®, finished natural, and the third bedroom was knotty pine, finished natural.

"We have three houses under construction at the present time in which we are planning to use Plankweld in the living rooms of two, with Novoply* painted in soft shades in the bedrooms. In the third house we are planning to use Novoply in the living room and paint it in deep green. These houses are to be in the $13,000 to $15,000 bracket."

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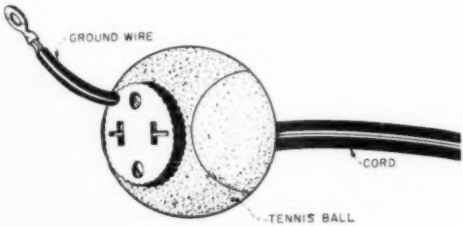
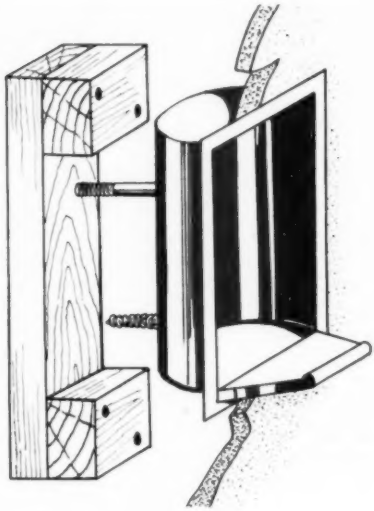


How to Deal with Socket Breakage

A good deal of socket breakage suffered while using extension cords when rough framing a house, especially where the cords were dragged through studs, joists, etc., brought forth this idea: Place a tennis ball over the socket for protection. Then the connection does not hang up or pull loose.—Frank Lovejoy, San Diego, Calif.



Securing Chrome Bath Fixtures

To fasten chrome bath fixtures where there is insecure backing, and it is not desirable to use plaster of Paris, the following method is suggested:

Nail two 1¼-inch blocks six inches apart on a piece of 1x2x10 inch board. Fasten a 3-inch screw (top) through fixture to the piece of 1x2 inch board and insert this board into hole cut in wall to fit the fixture.

By pulling on screw (top) and at the same time holding fixture tightly to wall, chrome screw (bottom) may be driven into place. Then withdraw screw (top) and replace with the other chrome screw furnished with the fixture.—Myron G. Miller, So. Williamsport, Pa.

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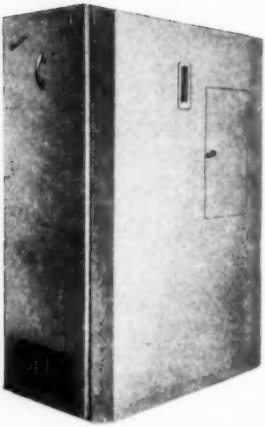

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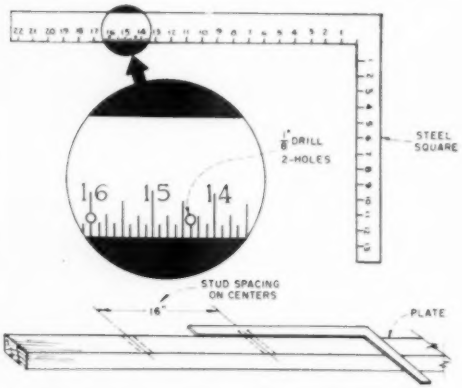
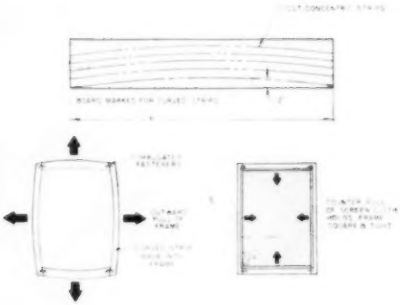


Marking the Square

Mark the steel square for stud spacing by drilling two 1/8 inch holes on the inside scale, one hole on the 14½ inch mark, and the other on the 16 inch mark. This is a big help in marking plates. The spacing can be seen at a glance. It also helps to identify your square from those of the other carpenters.—Dick Sogge, Sioux Falls, S. D.



Large Size Screens without Muntins

Use naturally curved boards to cut the frame or prestress a straight board by planing a curve on one edge, (approximately 2 inches to a 6 foot length) depending on the give of more or less hard lumber. Rip this material so that the continuing pieces will also come out curved. Tack the frame on the floor or work bench against straight guide scrap which has been nailed down squarely. This will press the curved pieces straight. On inexpensive or stationary work glue the joints and use corrugated fasteners, first on the side to be screened, and then on the other side. After removing the guide strips, the frame tends to spring back to the original curvature but is retained by the counter pull of the screen cloth. The result is a tight screen. Plastic screen is particularly suitable for this method.—Werner Kraatz, Santa Cruz, Calif.

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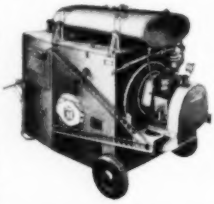

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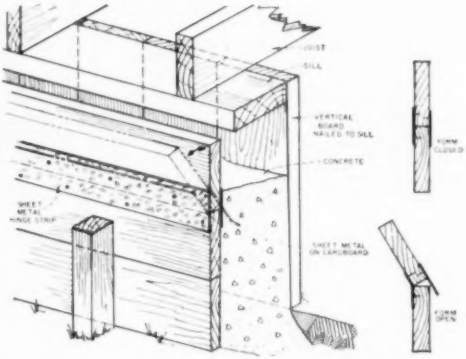
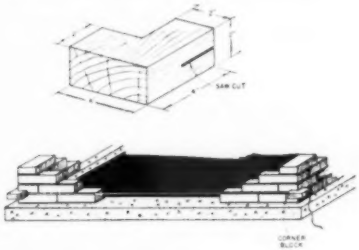


Foundations Under Existing Buildings

When replacing old wood posts with concrete foundations under existing buildings, old lumber is nailed vertically against the inside of the sill and horizontally on the outside, leaving out the top board on the latter. Nail a 3-inch strip of sheet metal or cardboard on the inside of the bottom edge of this board and join the outside of the board with sheet metal to the top of the form. When pouring the concrete, bend the form back to serve as a chute. When enough concrete has been poured to practically fill the whole form, then, force the topboard in, leaving hardly any voids to be pointed up after removing form.—Werner Kraatz, Santa Cruz, Calif.



Blocks Aid in Laying Wall

The following is an easy method of keeping filler courses in line between the corners of a masonry wall.

Two pieces of 2x4 studding each four inches long are used to make corner blocks. A saw cut two inches in depth is made in one leg. A similar block is made for the other corner. The knotted end of a stout line is passed through the saw cut in one of the blocks, which is then placed at the joint of the wall corner and held in position by keeping the line taut while passing to the other corner of the wall. The line is then slipped through the cut in the other block and placed in its proper position against the wall corner, keeping the line drawn tight. After securing the proper tension the free end of the line is wrapped around the slotted leg. As the work progresses the line is quickly adjusted for each succeeding course.—E. L. Goodwin, Orlando, Fla.

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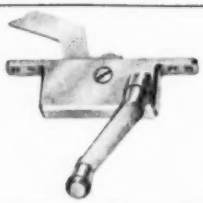

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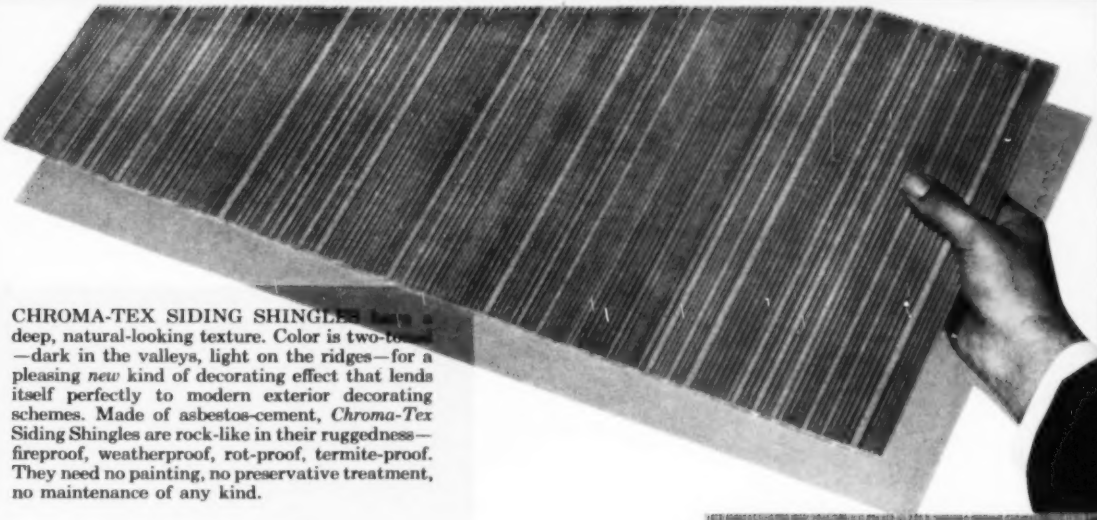

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Same lifetime durability! Same low price!

- Put more color, more style, more SELL into every home you build — at no increase in cost.
- Give home buyers the rich, textured effect of the costliest siding on the market — for the same price as regular asbestos shingles.
- Use the 5 appealing CHROMA-TEX colors to style every exterior with true "decorator harmony."

ASBESTONE—Rugged as the rock it's made from

ROOFING AND SIDING SHINGLES WALLBOARD
CORRUGATED ROOFING AND SIDING

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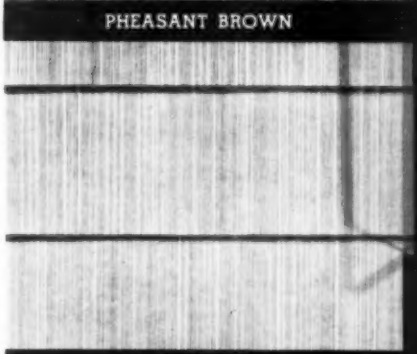
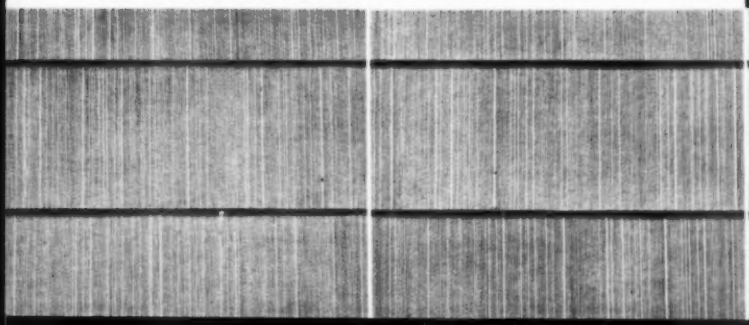


MELLOW IVORY



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DUSTY CORAL

TWILIGHT GRAY

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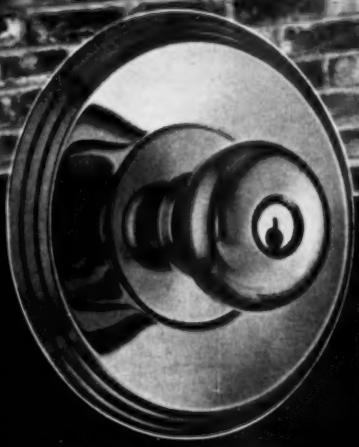

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with Riviera escutcheon

Write for full-color brochure showing distinctive and economical entrance locks.

The quality of Schlage cylindrical locks is clearly evident ...in their beauty and in their trouble-free operation... time-proven for more than a quarter of a century.

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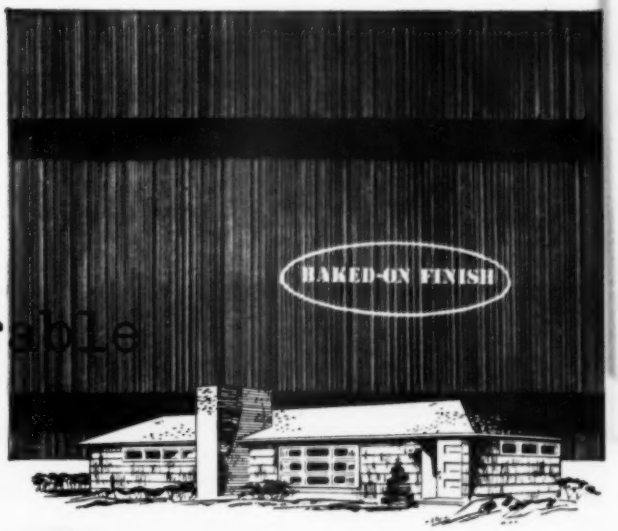
Only the Dua-Laps* process

gives you the hard, BAKED-ON SURFACE needed to withstand color deterioration...

Hundreds of infra-red lamps bake on this durable protective coating.



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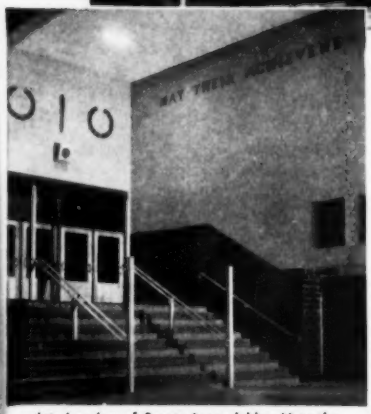
Now ALL Dua-Lap* colors are finished with the infra-red baked-on process for a more durable finish.

The American Stained Shingle Co.

General Offices: Spruce and Dennison Ave., Columbus 8, Ohio

Build with Concrete Masonry and You Build for PERMANENCE!

Exterior view of the completed $5,000,000 Milwaukee Sports Arena. Entire structure is 320 ft. x 420 ft. Seating capacity 12,750



Interior view of Sports Arena lobby. Note the beauty of exposed concrete masonry walls.

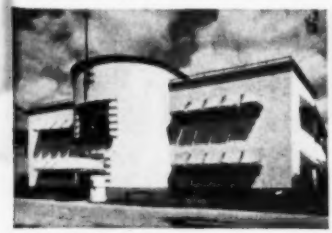
New Milwaukee Sports Arena is a Modern Example of Economical, Fire-Safe Masonry Construction!

In building the Milwaukee Sports Arena, the contractors were faced with the problem of achieving permanent, fire-safe construction at LOW COST. Concrete Masonry solved the problem. All units, including concrete brick, were produced on Besser Vibrapac machines.

Concrete Masonry units are used for all types of structures, such as hospitals, schools, skyscrapers and other public buildings. To the permanence of concrete are added such features as comfort, beauty, architectural flexibility, insulation against heat and cold, acoustical and soundproofing qualities, plus ECONOMY.

Write on your letterhead for free sample pages from new "Block Masonry Homes" plan book featuring 116 residential plans.

BESSER MANUFACTURING CO., Alpena, Michigan, U. S. A.



Concrete Masonry constructed club house at the Michigan State Fair Grounds.

Concrete Masonry is ideal for super service stations.

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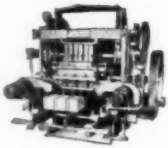
— the fully automatic concrete block machine. Sets the pace for modern production and handling devices. Produces high quality masonry units, of any desired texture and density, at the lowest possible cost.



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CUTS DUCT INSTALLATION TIME 50% IN AIR CONDITIONING INTERNATIONAL AMPHITHEATRE

Courtesy: Narowetz Heating & Ventilating Company, Chicago, Ill.

Listed and approved by Underwriters' Laboratories

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MODEL 450

REMINGTON STUD DRIVER

Despite a close deadline, ductwork was installed in time for both political conventions by the Narowetz Heating & Ventilating Company of Chicago . . . with the help of the Model 450 Remington Stud Driver. This revolutionary tool's speed and efficiency saved time and cut costs.

The Model 450 is completely self-powered and engineered for safety . . . sets as high as 5 studs per minute in joining steel and wood structural pieces to concrete and steel surfaces.

Test-proved to be the world's finest and speediest fastening system, the Model 450 Remington Stud Driver is made by Remington Arms Company, Inc., *America's oldest sporting arms manufacturer*. Price for Model 450, complete with rugged steel carrying case—only $119.50. For further information, fill out and mail the coupon.

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It's fast, easy and safe to operate the Remington Stud Driver

Simply hand-assemble stud and power cartridge, load as a unit in easy-to-open Remington Stud Driver and close.

Then press loaded Stud Driver firmly against work surface, depress safety lever, and pull trigger. Explosive charge in heads stud solidly.

Remington Arms Company, Inc.
Industrial Sales Division, Dept. AB-10
939 Barnum Ave., Bridgeport 2, Connecticut

I am interested in obtaining detailed information on the Model 450 Remington Stud Driver.

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Firm _____

Position _____

Address _____

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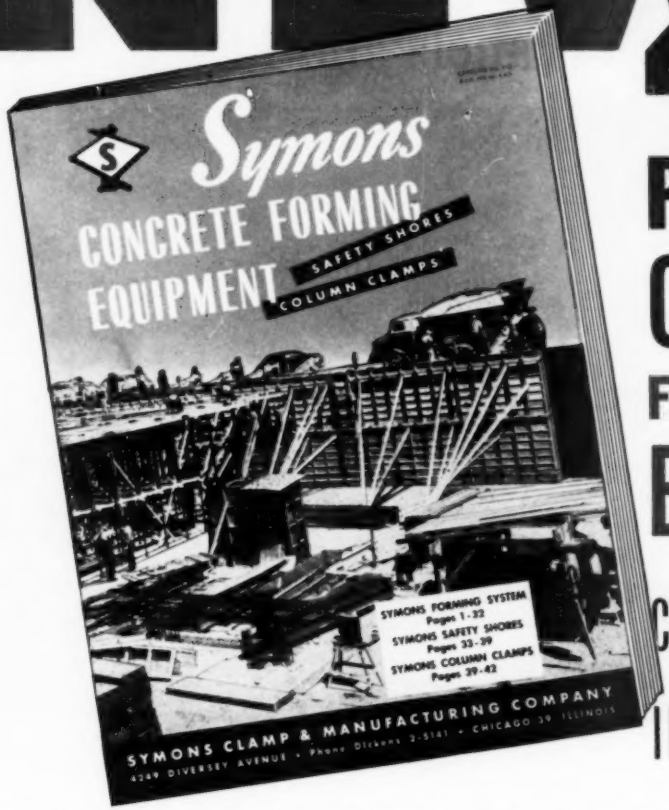

COMPLETELY ILLUSTRATED

Through the years the Symons Catalog has been a "must-have" among builders. This new catalog is no exception. It has all of the latest information and improvements in the Symons Forming System. Illustrations show in detail how simply and easily the forming system operates. Actual construction where Symons forms have been used are well illustrated—showing the forms in use as well as completed jobs. Also blueprint illustrations and complete specifications are given . . . material and equipment necessary, time required and cost figures on actual jobs.

For your added convenience the new catalog also contains detailed information on Symons Safety Shores and Column Clamps.

Symons

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Please send me a copy of
- ☐ Symons Concrete Forming Equipment Catalog
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New opportunities for remodeling sales

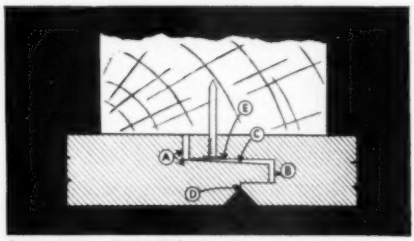
...with Johns-Manville Panels and Plank

This attractive room was built in wasted attic space. Walls are J-M Plank in Buckskin Tan. J-M Ceiling Panels are Ivory. Notice the broken-joint ceiling treatment which saves time in application.

Flame-resistant finish at no extra cost!

It's so easy to build a beautiful room like this with J-M Panels and Plank! Their rich new colors and flame-resistant finish (no extra cost) open up big, new opportunities for interior remodeling sales—both in the home and commercial buildings. The J-M *Glazecoat* finish is smoother, harder and more durable than ever before. The famous J-M Lightning Joint which speeds application and conceals fasteners gives you additional advantages—see diagram.

J-M Wall Plank comes in Ivory, Antique Green, Dust Rose and Buckskin Tan—J-M Ceiling Panels in White and Ivory. Johns-Manville, 22 E. 40th St., New York 16, N. Y.



Cross section of J-M Lightning Joint. Notice the spaces at A and B to provide for expansion and contraction . . . the tapered edge of the tongue C to facilitate joining . . . the square-corner edge D to make alignment easier . . . the large nailing area E for concealed nailing or stapling.

JOHNS MANVILLE JM PRODUCTS

Johns-Manville

These 3 Abrasive Wheels Solve ALL Your Problems

RED LABEL	BLUE LABEL	GREEN LABEL
Compositions and Non-Ferrous Metals Masonite, Fiber Board, Transite, Mycoloy Also: Asbestos sheets and siding; aluminum, copper, bronze, zinc, etc., in the form of sheets, bars, piping, siding, roofing, gutters, framing, coping, edging and cable.	**Iron and Steel** To cut, score and grind ferrous metals including alloy steels and cast iron in the form of pipes, angles, bars, sheets and rods.	**Stone and Plastics** For ceramic, clay and stone products. For dense aggregates such as concrete and cinder block, building brick, tile, firebrick, marble, slate, granite, terra cotta, synthetic stone, terazzo, limestone, porcelain, concrete and mortar.

NOW—no more guesswork . . . no time wasted selecting the right wheel. Just 3 standard abrasive wheels to choose from when you come up against the new hard-to-cut building materials!

Each Porter-Cable wheel is the stress-proof, safety type. Each is labeled with a distinctive color to make identification easy. Each has been thoroughly pre-tested on the materials for which it's recommended. And each does a whale of a job.

So look for the Porter-Cable Abrasive Wheel Display at your dealer's. Examine his chart listing all materials each wheel will cut. See how easy it is to identify and select the wheel you need!

On sale at your

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DEALER

Adapted to *Speedmatic's* Speed & Power

Speedmatic Saws have the excess speed . . . the stand-up power . . . to make quick work of the toughest job. And now . . . by standardizing on *only 3* abrasive cutting wheels . . . Porter-Cable makes your work doubly easy. You're sure you're using the right wheel . . . sure it'll cut fast, clean and accurately.

Get twice as much cutting action from your Speedmatic . . . use it with the new Porter-Cable Abrasive Wheels!

PORTER-CABLE Machine Co.
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Please send folder describing new Porter-Cable Abrasive Wheels.

Name.....

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Manufacturers of SPEEDMATIC and GUILD Electric Tools
In Canada write: Strongridge, Ltd., London, Ont.

"Ask The Experts"

Got a problem you haven't solved? Can't solve? Haven't the time to solve?

Have you solved a problem with an answer you aren't sure of?

Are you doing some particular job—big or little—in a way that you think might be improved?

Then "ASK THE EXPERTS"—a group of industry authorities—experts in their fields. They'll give you the answer.

Address your questions to: "Ask The Experts," *American Builder*, 79 West Monroe St., Chicago 3, Ill.

As many questions and answers as space permits will be published monthly in *American Builder*, under the head—"Ask The Experts."

Name of a Product

I have seen in operation cabinet doors which had small magnet plates to hold the doors in place instead of friction catches. So far I am unable to find this magnet in any hardware store and no one seems to know who is the manufacturer.

I'll appreciate very much if you can furnish me the name of the manufacturer of this magnet.

S.F., Port Arthur, Texas

There are two. One is Teco-Latch, manufactured by Laboratory Equipment Corp., St. Joseph, Mich. The other is Magnecatch and is produced by Engineering Achievements, Inc., 1028 Chamber of Commerce Bldg., Indianapolis, Indiana.

National Contract
Hardware Association

Moisture Under Tile

We had a problem develop in one of our residences to which we have been unable to find the answer. Perhaps you can help.

Description: Sandy soil was built up 18 inches above general ground level; five inch stone on top of this; next three to four inches of concrete. Sealers were used. Asphalt tile covers the whole area. In place about one and a half years. Tile is not loose on the floor.

Problem: Moisture of some description coming between joints in tile. Rub finger over . . . feels wet . . . not sticky. No odor. Does not appear to be mastic. House closed for five months. Found floors in two rooms with this moist condition. In some places edges of tile spewed up like an ant hill except in straight line with joints. Wiped up these places, found tile pitted along edges about 1/32" deep. Placed material picked up in paper towel, when it dried it was just like dust.

We have consulted local asphalt tile dealers who say they have never encountered such a condition and do not know the cause, or worse yet, the cure.

H.F.M., Burlington, N.C.

From your description of the installation, it sounds as though you had an alkaline moisture condition. For the best method of solving your problem, I would suggest that you write direct to the manufacturer who made the tile you have used and give him the information that was contained in your letter. Also, tell him the color of the original tile, the type and, possibly, make of adhesive used to cement the tile to floor.

Radiant Heat in Ceiling

We are building houses here in Utah heated with radiant coils in the ceiling. It works very well. We put up the coils and then apply metal lath and plaster.

Is there a wallboard or ceiling panel that can be used and still get as good results as with metal lath and plaster?

Would a metal ceiling panel work? Gypsum wallboard has a paper on each side which insulates a lot of heat out. Would the asbestos cement boards work as well as plaster?

G.D.W., Layton, Utah

You explain that in your radiant heated panel you install the coils and then apply metal lath and plaster. The transfer of heat from your coils, for best efficiency of the heating medium is dependent upon contact with the plaster, so I am taking for granted that you take the utmost care in seeing to it that at least 50 per cent of the outside circumference of the coil is in intimate contact with plaster.

Your question concerning the use of a prefabricated wallboard in radiant heating has not been fully investigated. We, therefore, cannot give you recommendations concerning this. However we are pleased to enclose herewith copy of our recommendations as concerns panel heating as allied with gypsum products.

Repairing Cracked Ceiling

I recently repaired some cracks in the ceiling of our living room with spackling compound. The ceiling is constructed with plasterboard and then covered with wallpaper. After allowing the spackling compound to dry and sanding it, I applied a rubber base paint. The job has been completed approximately three weeks, and the crack has reappeared and actually looks worse than it did before we repaired it. Can you possibly advise us how this should be repaired correctly?

C.M. McC., Knoxville, Tenn.

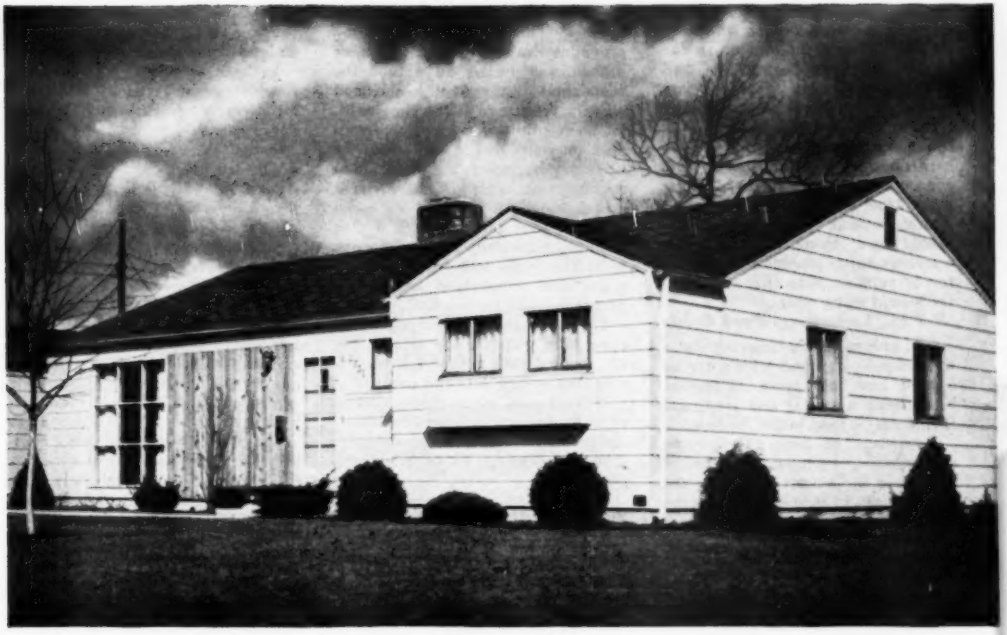
The condition you describe can usually occur only when distortion of the framing members supporting the gypsum wallboard has taken place. If you find this condition true in your building it definitely must be changed before any type of correction will possibly work. Gypsum wallboard although having a substantial structural value is not designed to overcome structural defects sometimes overlooked in either design or construction.

Should there be no structural defects in the building you describe, I am certain the following will work: clean the crack of all loose or foreign materials, then refill with a reputable manufacturer's spackling material, allow to dry, sand smooth. Then cover with standard gypsum wallboard joint cement and tape, three coat work, applied as directed by the manufacturer. This should satisfactorily correct the condition you have described.

Waterproofing Joints:

Thank you for your letter of March 21st., re caulking or pointing masonry walls. You say in the third paragraph to apply a good grade of waterproofing compound to the surface of the old joint that

(*Continued on page* 76)



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GPX plastic-faced plywood's unmatched features and cost-cutting advantages are dramatically illustrated by the Place Construction Company's use of GPX Exterior Paint Grade for lapped siding of enduring beauty.

This leading Indiana builder cut large, lightweight panels of GPX into 12-in. strips. Labor costs and time are saved because GPX covers large areas quickly—will not check or crack. Painting costs are cut because there's no need for prime coats. GPX's dense, smooth surface takes finishing coats readily, extends the life of the paint over 50% (a strong point for prospective buyers!). There's added beauty, too, in the deep shadow lines provided by these ⅝-in. thick strips.

Year after year, GPX remains impervious to the effects of weather extremes, free from cracks or checking.

Available in four grades and five thicknesses, GPX offers a new degree of building versatility. If you have a construction problem, bring it to Georgia-Pacific's GPX technical staff. Call your G-P representative or write:

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PLYWOOD COMPANY
617-10A North Capitol Way, Olympia, Wash.

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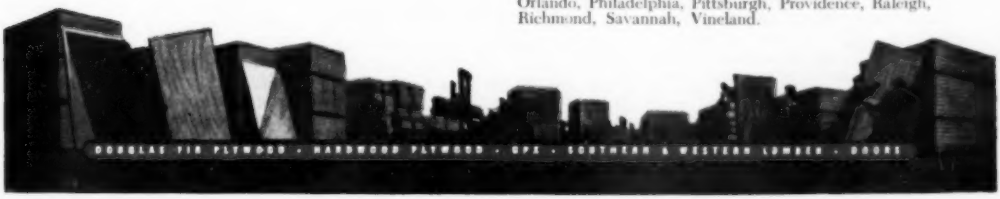

(*Continued from page 74*)

is to be pointed before applying waterproof cement mortar in the joints that have been raked out. If I interpret this correctly, you mean to put the waterproofing right in the joints that have been raked out, and then apply the cement mortar afterwards. Is this correct, and furthermore, just what kind of waterproofing compound would you suggest? I would not think that if this waterproofing compound had a tar or asphalt base that the mortar would stick to it.

R.T.M., Lunenburg, Nova Scotia

You are correct in believing that a waterproof compound with a tar or asphalt base will serve to prevent bond between mortar and joint, and should not be used in this fashion.

Regardless of how effective the waterproofing compound may be, or how good the mortar, wherever the mortar is not in tight contact with the brick or concrete masonry unit, there is room for the entrance of water and the wall may leak. Tight joints are essential. Since a waterproof compound with a tar or asphalt base would serve to prevent a tight bond between mortar and masonry, it should not be used before the mortar is placed.

Studies of water penetration into brick masonry conducted at the Bureau of Standards showed that when the interior walls of brick buildings became wet during a rain, it was likely that water had entered through open spaces between brick and mortar rather than directly through these solid materials. However, where it is apparent that water is passing through the masonry, a waterproof treatment applied to the vertical wall surfaces after all joints have been properly tooled may be necessary. A plastic caulking compound or similar material should be used where the masonry joins other types of materials.

Most important is careful attention to joints. Preferably they should be either weathered, concave, or V joints. Tool finishing should be delayed until the mortar has stiffened sufficiently to hold its shape.

Surface Water Seepage

Kindly advise as to what I can do to prevent seepage of rain water under the foundation and floor of a new house or how to cope with the situation. The water does not stay too long, but will it do much damage?

P.M., San Jose, Calif.

The only way that is possible to cope with seepage of surface water alongside of the foundation or under the floor is to provide means to remove it. This can be done best by providing drain tile, preferably four inches in diameter, all around the foundation at the footing line, and connect the drain tile to the sewer. In the event that a sewer is not available in your area, it will then be necessary to connect the drain tile to a sump pump located in the basement and then dig a dry well at some low point on your property with a pipe connecting the sump pump to the dry well. The pump will remove all the water that accumulates around the foundation into the dry well.

These tile are laid with a ½-inch open joint with the top side of the tile covered with a hard felt to prevent dirt getting into the joints.

It is not good for an excess amount of water to remain around the foundation for any length of time; it should be disposed of as quickly as possible.

Ventilating the Attic

I am a builder by trade. We have an almost new 1½ story house. It is all insulated with Balsom-wool from plate to peak. We have trouble in the summer time of being stuffy in the two rooms upstairs. Our rooms downstairs are nice and cool. I have not installed any louvres as yet, could that be the cause of this condition? If so, should they be placed in the roof or the gable ends?

O.N., Ashby, Minn.

I believe the answer to your problem would be to install louvres at the gable ends of both end walls. This will give you through ventilation in the area between the ceiling joist and the roof which will have a tendency to make the two rooms on the second floor comfortable in the summer.

Seeking Heating Data

In the January, 1952 issue of the American Builder, under Technical Guide, you featured a perimeter lateral warm air heating system. I would like further information on this type of heating and exactly the type heating unit that was used, where the grilles can be purchased and their size, and any other relative information on installation.

S.M., North Adams, Mass.

For information about the design of the system, we suggest that you write directly to the builder whose system was described—C. L. Bartel, Bar-Tel Company, 305 Western Reserve Building, Muncie, Ind. Mr. Bartel worked very closely with engineers who designed his system, so he, better than we, would be able to tell you all the details of how it is designed and installed.

In the description of the Perimeter-Lateral system given in "Manual 4 . . . Warm Air Perimeter Heating" (1952 edition), published by this association, the following qualifications are made:

"It is not possible to give a specific design procedure for a lateral system since it will vary with the type of materials used for the air passages. Uneven heat distribution through the structure, excessive resistance through the system, and uncomfortably warm floors may result from an improperly designed job. A lateral system should be installed under the design and direction of a competent engineer who is thoroughly familiar with it.

Mr. Bartel because of his experience with the system, can give you the data you will require. He can also provide you with names of the manufacturer of the grilles he used.

The furnace used is a downflow model, manufactured by the Majestic Company, Huntington, Indiana.

Warm Air Heating and
Air Conditioning Assn.

Excessive Moisture

Here is my problem: Within a period of two months after I installed an additional bathroom on a customer's residence, a mildew mold condition developed behind the wallpaper above the tile wainscoting on the north wall as well as behind a large 4 x 8 foot glass mirror which was secured directly to the gypsum board wall.

This mildew mold ate the silvering off the mirror and affected the waterproof paper directly below. Upon removing the wallpaper and mirror, the excessive moisture was discovered.

I had the mirror re-silvered and covered with shellac on the backside. I removed the gypsum board behind the mirror and found the insulation between gypsum board and vapor barrier dry. After replacing with new gypsum board, I had it coated with two coats of aluminum enamel. The mirror was reset and the walls papered with the same pattern of wallpaper.

Approximately eight months later, I found the same condition developing again; that is, the mirror back being affected and the wallpaper mildewing. Upon examination (the mirror and some of the wallpaper was removed) I found the walls wet again. The mildew mold had developed on

(*Continued on page 78*)

"He's the biggest builder north of the Yukon now that...

EVERYTHING HINGES ON HAGER!"*

C. Hager & Sons Hinge Mfg. Co. • St. Louis, Mo.

Founded 1849—Every Hager Hinge Swings on 100 Years of Experience

HAGER HINGES *®

(Continued from page 76)

top of the aluminum enamel finish, but not underneath it. The aluminum surface when wiped dry was just the same as when it was applied.

On the west wall of the bathroom, the same type of mirror and wall construction was used, but no mildew mold is apparent. Please let me know how I can solve my problem.

W.E.D., Waco, Texas

Attached is circular 754 from the Scientific Section of the National Paint, Varnish & Lacquer Association, Inc., Washington, D.C., dated January 1952 on "Mildew Growth on Paint." We believe this pamphlet will give you information on how to eliminate mildew.

Mildew is a form of plant life that exists in the air and feeds on organic matter, particularly where moist conditions exist. One of the primary steps to be taken is to locate the source that causes this moist condition and eliminate it.

Inasmuch as this condition seems to be localized on only the north wall of the new bathroom, two possible sources offer themselves. The gas wall heater may be a contributing cause, as one of the products of ignited gas is water vapor. If this should in some way, through a leak or an unvented condition, work its way into the area where the mildew is found, it could be a cause for the trouble. The other, and more likely source, because of the fact that it is localized, may be due to a leak at the junction of the bath, roof, and the siding of the older portion of the house in the corner where this north wall occurs. Such a leak may work its way along the underside of the roof boards and drip down at the particular spot where trouble is occurring.

If you will follow the suggestions contained in the pamphlet attached and mix mildewcide with your paint when you repaint, the opportunity for such spores to exist would be eliminated.

You do not have a condensation problem. If you did, it would appear elsewhere in the bathroom. The protection given the inside surface of exposed walls through the use of tile and paint would prohibit condensation. This is the reason why a leak of some type should be considered as the source of moisture which attracts mildew growth.

Painting a Basement:

I have a large heated basement that we are going to decorate for a gymnasium. The ceiling is rough, porous surfaced Celotex and the walls are rather rough poured concrete. We would like to know of some form of sealer other than that which is put out by paint manufacturers (something cheaper in price) which we could spray or brush on, as this board absorbs an excessive amount of paint.

The walls seem to stay dry, and we don't want to use water paint. Do you think inside or outside paint would be more satisfactory? If we used a cement and sand paint, or wash, to seal some of the pores and cracks, would it be possible to paint over this with an oil paint?

T.A., Columbia, N.J.

From your description it would appear that the material in your Celotex ceiling had not been prefinished such as the reverse (textured) side of Celotex building board. For such a surface, the Celotex Corporation recommends a water-base size in preparation for a finish coating in an oil or varnish paint. The formula for this size is as follows:

Soak 1½ pounds of chip or flake glue in a pint of water, then dissolve by adding a gallon of boiling water. This must be thoroughly brushed onto the surface to be decorated before it has cooled completely. This same size is also right for Celotex surfaces which are to receive water-mixed finish coats of paint.

As for the concrete walls: oil paint is available which is formulated especially for masonry surfaces. It has good hiding power and provides a durable finish when two coats are applied. When using this masonry oil paint, open textured surfaces require a preliminary coat of a cement-sand base material.

Tile on Slab Floors

My problem is concerned with a slab floor. I would like to lay on asphalt tile but not directly on the slab. I wonder if it would be possible or advisable to glue Plyscore or any other material with linoleum glue as a base for my asphalt tile?

A.M., Antioch, Calif.

We recommend that you not use linoleum glue directly on the concrete slab that is in contact with the ground unless there is a good membrane waterproofing under the slab.

If there is no membrane dampproofing, then the asphalt tile should be placed directly on a slab which previously has been covered with adhesive asphalt cement. In most floors on ground construction, asphalt tile is applied directly to the slab. There is no reason to use plywood between the slab and the asphalt tile.

Fire-Retardent Paint

I would like some information regarding fireproofing or fireproof paint. I am building in the country where fire equipment is not readily available. The structure is a frame ranch house. I would like to paint the sheathing (Armstrong's Temlock) with a fireproof paint. If this method is advisable is it necessary to paint both or just one side? Balance of exterior wall surface will be tar paper and drop siding. Insulating batts will be placed between studs with dry wall for inside surface.

Would painting like this cause moisture or condensation? Do you think this is a very practical idea.?

A.A.W., Chicago, Ill.

There is a product called Albi-"R" sold by the Albi Mfg. Co., 228 No. LaSalle St., Chicago, Ill., which if applied to both sides of a piece of wood or a product having a wood base will prevent it from burning for a reasonable length of time. It would not, however, be a practical idea to apply this material to the sheathing in the manner described. The sheathing being surrounded by inflammable material on both sides it would not deter the spread of flames to the other portions of the wall construction because of the compact arrangement.

Insulating Block Walls

I have a house, the walls of which are constructed of cinder blocks, stuccoed on the outside and painted with a cement-base paint on the inside.

I like the appearance and texture of the painted interior of these walls, but I am told that the heat loss through them in the winter is very great.

Can you tell me if this is so, and, if it is, the best way to insulate such walls?

K. W., Northport, L. I.

We suggest that you furr out and plaster the interior walls. This will usually provide the insulation needed in your area. If further insulation is desired, then rigid insulation board can first be applied over the furring strips before plastering. Of course, if either of these methods is used, you will lose your textured masonry surface on the interior.

If exposed concrete masonry walls are desired on the interior walls of a new house, they can best be achieved in northern climatic zones by means of cavity walls with a two inch or larger cavity.

Portland Cement Assn.

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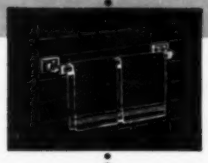

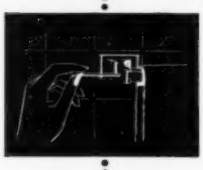

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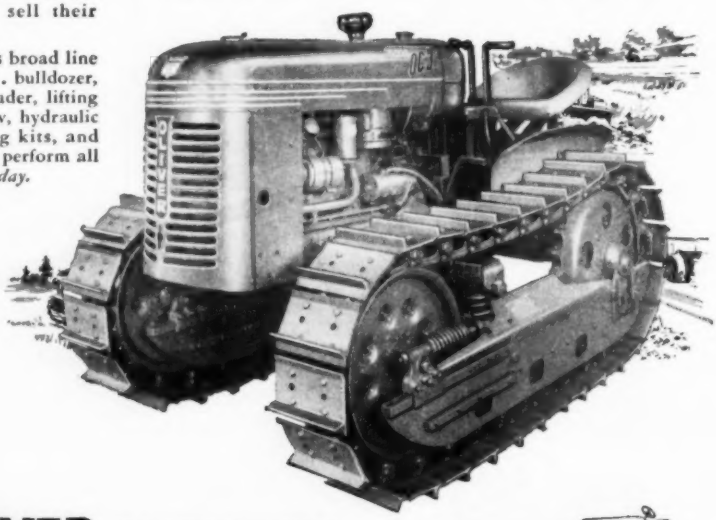

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Pull the knob—and the Cutting Head is free for finger-tip setting at any desired angle. Release the Knob—and Head is locked in the desired position.

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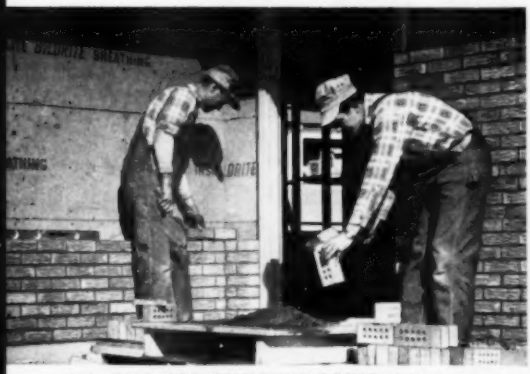
President, Distinctive Homes, Inc., Wichita, Kansas



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See this new economy line at your Russwin dealer's. Check it. Compare it. You will find that it's up to Russwin's high quality standards in every respect . . . an outstanding line in its price class. The Russell & Erwin Division, The American Hardware Corporation, New Britain, Connecticut.

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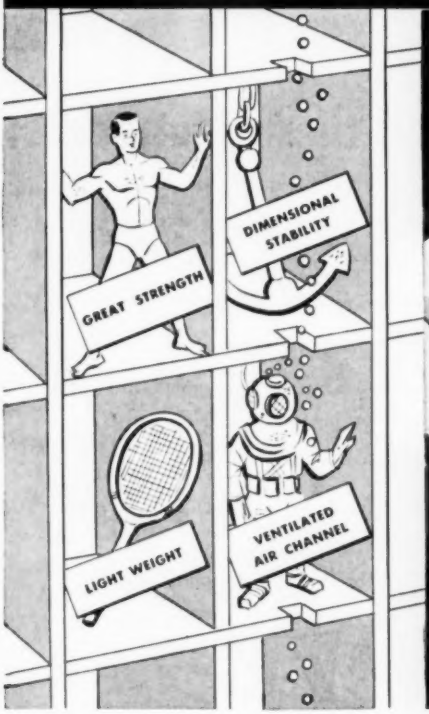

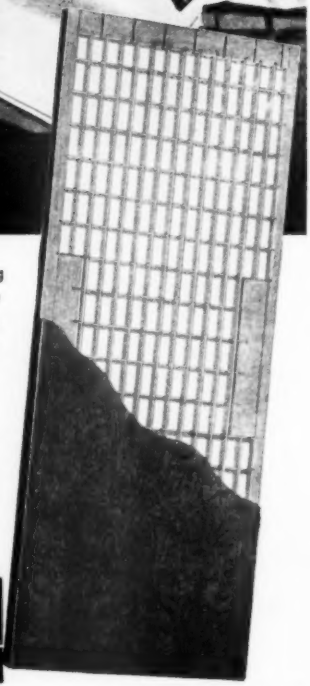

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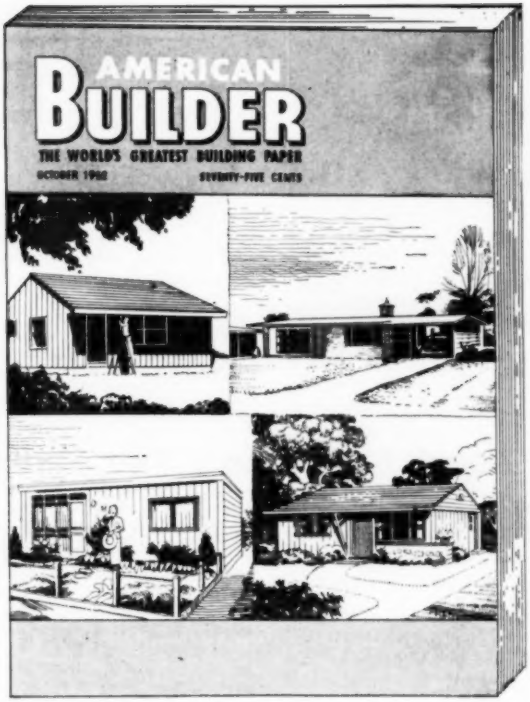


New planning, better design, place the small home on a desirable-to-own basis, belie its minimum status

Who says there are no low priced houses?

here are FOUR of them

MINIMUM HOUSE, the term attached to small houses with a price tag low enough to be within the means of most low-income families, is rapidly becoming a misnomer. Thanks to new planning features added to the unrelenting battle to drive down costs, ownership of the 1952 crop of low-price homes has been made desirable as well as a necessity.

Latest models, of which four representative examples are shown on the front cover and described on following pages, offer increased livability through better design and more efficient use of space. Lumber dealers and architects, as well as the builders themselves, have contributed many of the advanced ideas.

Among them are the use of wardrobe closets and cabinets in place of partitions; built-ins to reduce the amount of furniture needed and to increase a feeling of roominess; a plan to permit future horizontal expansion; louvre and fan cooling system; slight increase in over-all space; more closet room, and insulated window glass.

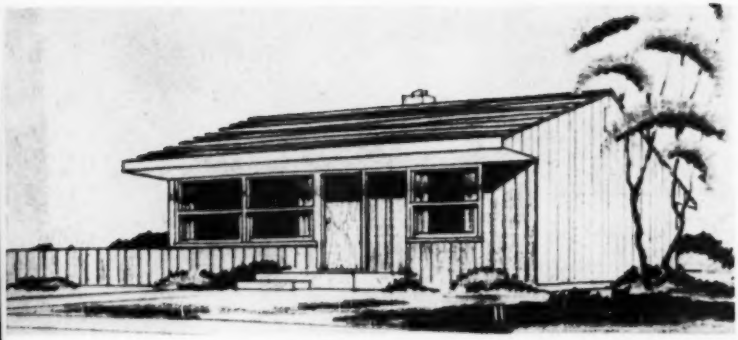
Although large numbers of the 1952 higher-quality minimum houses are under construction, production is still hampered in varying degrees, depending on location.

Building codes in most urban areas require heavier construction; many local zoning regulations call for homes of larger size, and financial institutions willing to issue mortgage money for this type of house are not very plentiful. There is little that builders can do about the first two problems in sections where the economy house has been legally forbidden. However, some have solved the financing problem for buyers by making their product available through a conventional loan and second mortgage on payment of a modest down payment. As explained by the developers of the San Angelo plan, whose house is included in this series:

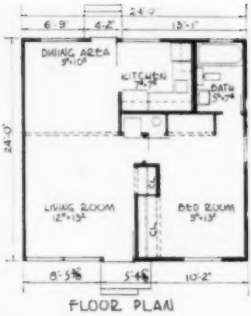
"We know that second liens are not the best paper in the world, but practically all we are gambling is our profit. We, of course, have the right to purchase the first lien in case of default to protect our interests. Our savings and loan association told us the best paying accounts they have are the people in the groups we are trying to help."

This, then, is a part of the industry's answer to the nation's need for low-price housing. It has met the challenge without sacrificing its rightful, reasonable profit, or adding to the tax burden of the public.

Some of its accomplishments are presented herewith:



Basic house measures 24x24 feet, has no openings on side walls so that future expansion can be a simple operation. All windows are double glazed



Nearly half the basic plan is living-dining space. Bedroom has two closets

Easily Expanded — 1 to 3 Bedrooms For $5,000

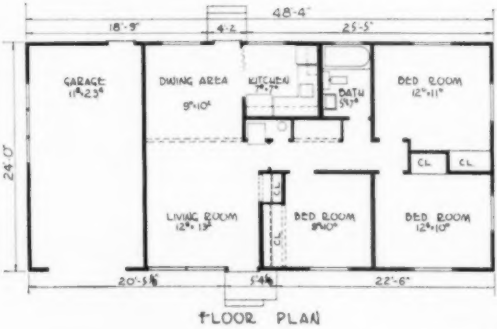
THIS PLAN is especially intended for the family desiring a comfortable one-bedroom house to which a garage can be attached and two more bedrooms added with a minimum of change. It is a new development of the Thompson Lumber Company of Champaign, Ill., and is intended for northern climate at cost of $5,000, exclusive of land.

With 576 square feet of floor area, the basic Thompson house is built on an 8-inch concrete block foundation with a minimum 2-foot crawl space. Economies are achieved by the use of back-to-back plumbing, wall furnace, truss roof framing, wallboard interiors and single fir floors. Exteriors include 4x8 panels of ⅛-inch asbestos cement with 1x2-inch battens nailed over the cement board to the studs, 16 inches on centers, a treatment resembling board and batten construction.

The program calls for about $1,000 worth of owner's labor. Among his jobs are installation and decoration of the wallboard, laying the floor, in addition to grading, seeding and exterior planting.

Prospective plans call for conventional loans on the basic structure, although it is eligible for FHA Title I financing. Material costs for the two additional bedrooms and attached garage amount to $1,700—extra business for the lumber company. To cover this cost, a five-year FHA remodeling loan can be arranged for the owner.

House can be expanded to 45x24 feet for $1,700 if owner supplies labor



COST ANALYSIS—THOMPSON HOUSE
Champaign, Ill.

Foundation, Footings, Stoops	$ 400
Shell Labor	700
Plumbing	850
Septic Tank System	350
Wall Furnace	250
Electricity	200
Lumber, Millwork	1,800
Builder's Profit	450
Total	$5,000

Small Title I House For About $4,500

Sketch of one of four exteriors for two-bedroom house of 620 square feet

HERE is the National Plan Service's latest suggestion for an economy home that can be built in any area of the nation under existing provisions of Title I, Section 8 in the National Housing Act. Early reports of construction under way in Minnesota and North Dakota indicate this house can be built for about $4,500 in northern states, if the buyer contributes some of his own labor. However, the company would not confirm this until field checks are completed.

NPS believes the size (20 feet 8 inches x 30 feet—620 square feet) is maximum for the north, but that it might be expanded in the south where costs are generally lower.

The plan includes two bedrooms, living-dining area, kitchen and bath. The kitchen area is partially separated from the living-dining space by a protruding partition which shields the broom closet and space for a small washing machine. The hot water heater, usually located in the kitchen in a small basementless house, is placed in a closet wall between bath and bedroom to make more room than usual available for kitchen equipment.

Design calls for use of a centrally located wall or floor space heater. Each room, according to the sponsors, can be kept comfortable, even in the coldest states, by a floor-type furnace with a 45,000 B.T.U. output rating. In southern territory, they recommend tapering down requirements to small panel heaters, specifications to depend on type of exterior.

Other basic elements include:

Foundation: 6-inch concrete wall.

Floor: wood joists over crawl space and a center girder running the length of the building.

Interior finish: dry wall with plywood, gypsum board or other suitable sheet material.

Exterior walls: conventional stud walls of 2x4's, set 16 inches on centers with insulating sheathing.

Ceiling: wood joists, or if trusses are used, the bottom cords of same, spaced 24 inches on centers.

Roof: conventional rafters 16 inches on centers or wood trusses 24 inches on centers can be used.

The planning service acknowledges that this is a minimum house, devoid of all frills and costly mechanical features common to better class homes. At the same time, it has managed to work into the design some details which spell the difference between a mere four-wall shelter and a comfortable home. A major attraction is that there is a closet for every room, including spacious units for the living room and the larger of the two bedrooms.

Another N.P.S. design offers a home of about the same size and cost, but with a more square floor plan.

PROPOSED EXTERIOR STYLING

National Plan Service House

Exterior No. 1

Walls: beveled siding.
Roof: asphalt shingles.
Sash: gliding type.

Exterior No. 2 (flat-top)

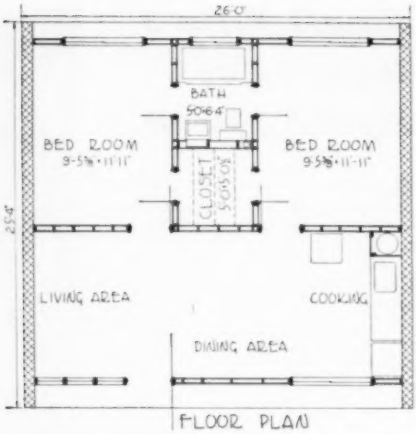
Walls: exterior plywood.
Roof: composition tar and gravel.
Sash: ventilating and stationary units.

Exterior No. 3

Walls: double coursed, pre-stained or pre-painted shingles, 12-inch exposure.
Roof: wood shingles.
Sash: conventional sash and double-hung windows.

Exterior No. 4

Walls: Vertical redwood boards and battens.
Walls (gables): Drop or pattern siding.
Roof: asphalt shingles.
Sash: conventional, double-hung.



Closet room is concentrated in one 5x5-foot space

$3,000 House Leaves Profit for Builder

THE much heralded San Angelo Plan, sponsored by the Lumbermen's Association of Texas, remains the lowest cost house containing about 600 square feet of floor area to be introduced so far this year in the South.

A two-bedroom dwelling, it was developed by John A. Moss and John Armstrong of the Armstrong Brothers Lumber Company of San Angelo to sell for $3,000, figuring an estimated profit of about $450 for the builder. Sales price with plot is $3,500.

Ultra-simplification of wall, floor and roof members may have provoked some criticism over this design, but many of the units are actually being built. The sponsors report the plan has evoked such widespread interest that builders from more than half the states have requested their $100 kit of specifications, sketches, working plans, bill of materials, etc.

Among non-conventional features in the construction, the foundation and floor is a continuously poured, floating slab, troweled smooth to receive asphalt tile finish floor. Bottom plates for partitions are spiked into concrete while it is still "green," with 15-pound asphalt felt building paper placed between plates and slab.

All partitions, outside frame walls and semi-flat decked roof are framed before the two side masonry walls are erected. The masonry walls have no openings and are left exposed inside.

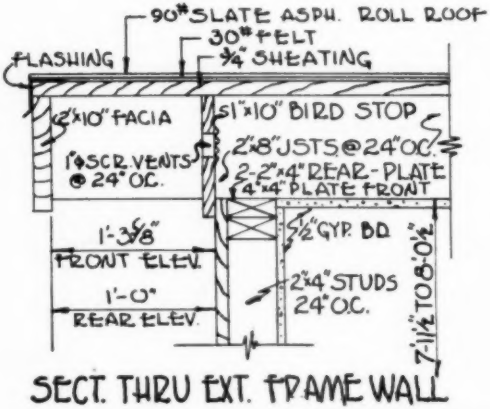
Half-inch gypsum board is used on frame wall interiors and on ceilings. This board is cut as closely as possible to door jambs and window frames. Gaps are filled later with a joint cement and then papered over.

Door jambs are 2x6 No. 1 fir or yellow pine, carefully selected since exposed edges are finish trim. Window frames also serve as finish trim.

The financing plan includes a 10-year conventional loan of $2,200 and a $650 second mortgage, the latter retained by the sponsors. Both liens run at 6 per cent interest and permit a down payment of $650.

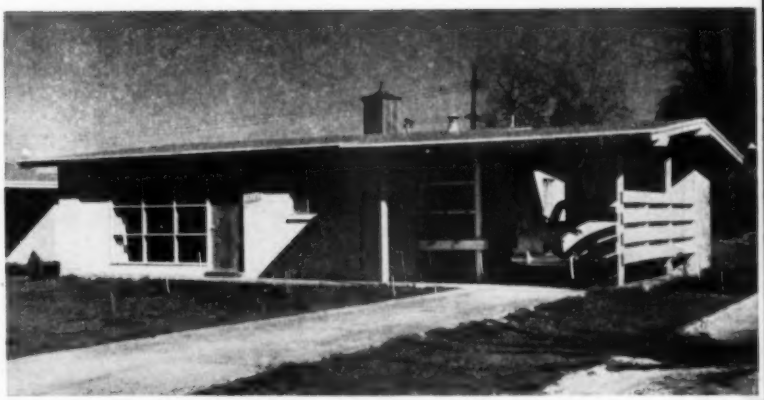
COST ANALYSIS—SAN ANGELO PLAN
San Angelo, Texas

Materials		
Foundation Materials	$ 44.32	
Framing Materials	150.78	
Siding, Roof Deck and Cornice Band	196.94	
Wallboard	82.94	
Doors, Windows and Jambs	167.31	
Kitchen Cabinet (Materials only)	44.73	
Hardware	37.77	
Nails	8.42	
Plumbing Fixtures and Fittings	218.42	
Miscellaneous Materials	137.03	
	Total	$1,088.66
Subcontracts		
Carpentry	$350.00	
Plumbing Labor and Rough-in Materials	350.00	
Painting and Paperhanging	205.00	
Electrical	103.00	
Roofing	65.00	
Labor for Asphalt Tile and Drainboard	42.40	
Masonry	225.00	
Concrete	121.00	
	Total	$1,461.40
	Total Cost	$2,550.06



SECT. THRU EXT. FRAME WALL

2-Bedrooms, 900 Sq. Ft. For $5,950



Use of "revolving" plan gives buyer choice of three elevations. In this example, breezeway connects with carport and storage room; also serves as cover for water heater, washer connection and laundry tubs, installed on outside concrete platform

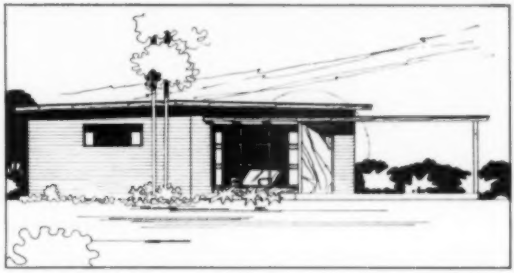
This Lux-Econ design of Frank R. Fazio, architect and builder of Phoenix Arizona, demonstrates how good planning can produce a considerably oversized low price house which includes several moderate-cost home features without a proportionate increase in cost.

Base price of this two-bedroom, 900 square foot dwelling, built with breezeway and carport on the owner's plot, is given as $5,950, which leaves the builder an estimated $459.50 for overhead and profit. To insure variety in a development, the plan has been turned three ways, providing as many different elevations. A complete breakdown of costs appeared on page 75 in the July *American Builder*.

One of the chief construction savings is gained through substitution of closet walls for two interior partitions. Two floor-to-ceiling wardrobe closets separate the bedrooms. Cupboards backed by plywood close off the kitchen from the living room. Below the cupboards is a built-in snack bar which has an opening through the plywood for use when kitchen work space is needed as a serving area.

One highly desirable feature for homes in hot, dry Arizona climate, is a plenum installation above the built-in linen closet. Registers open into each room, providing an efficient cooling system without the use of ducts. Still other built-ins are provided in the bedrooms, cutting down on the number of furnishings needed by the new owners.

The monolithic pour method, uniting footings, stems and floor slab, is used for the foundation. The buyer has a choice of pitched or flat roof, or a combination of the two, illustrated on this page.



Combination rafter-joists give pitch to the roof and a level ceiling in this elevation. This is made possible by ripping 18-foot 2x14's diagonally to get two 18-foot pieces 4 inches wide at one end and 10 inches at the other. The 10-inch widths are placed at the ridge

PLAN 412

Room dimensions are comparable to those found in many homes for moderate-income families

Undercover shopping, a characteristic of integrated centers today, is provided by a 12-foot promenade

One-Stop Shopping— *California Style*

Used brick or rough unpainted lumber comprise the material surrounding the store fronts. Adobe is also used. All buildings rest on concrete slabs. The casual way in which the materials and joints are combined contribute to the charm and atmosphere of the center

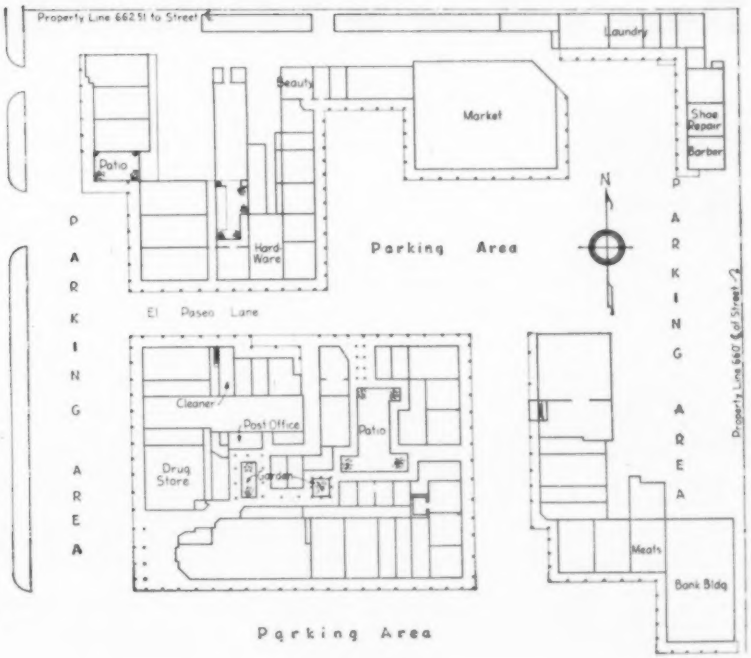
IN SACRAMENTO, CALIF., builder Jere Strizek has created an unusual shopping center known as Town and Country Village Shops. It includes 60 retail outlets and 20 services in a self-contained plan with limited peripheral parking facilities.

Construction-wise, Strizek has combined old lumber, used brick, adobe and red clay tile to create a center which breathes the spirit of Old California, and where shopping is fun. There are plants and flowers everywhere; a central patio with concrete dance floor functions as an outdoor cafe. Music is piped through the center from a central point.

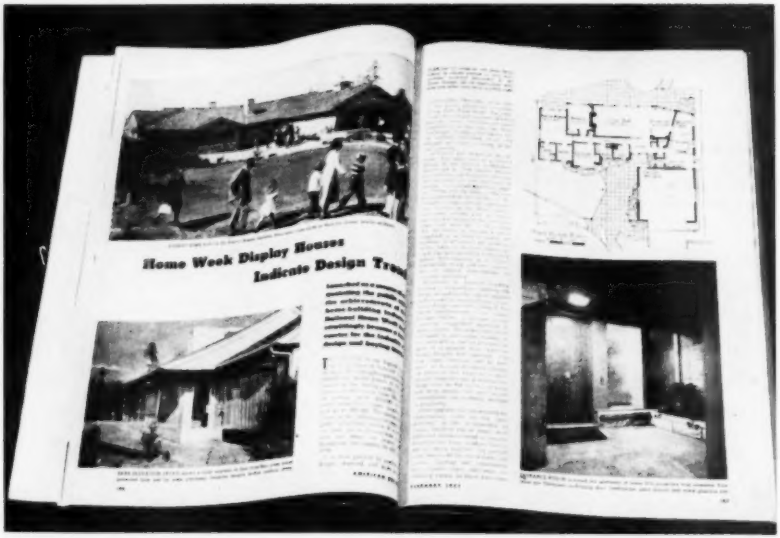
The unusual personality of the center has tended to make it into quite a social center. Strizek keeps up a barrage of institutional advertising, and the newspaper ads of the various tenants also help to keep Town and Country Village Shops before Sacramento shoppers.

Most prominent entrance to the center is this corner facing the two boundary streets. It leads into an inner shopping area known as the Adobe Court. The entire center is roofed with a heavy red clay tile

Principal structural members are reclaimed bridge stringers supported on reclaimed poles or lally columns



Center occupies an almost square plot, 660 feet on a side. This plan labels location only of the shops and services generally rated as "necessities" in shopping center planning



SEATTLE house was part of *National Home Week* review published in February 1951 *American Builder*

Don't let geography influence your choice of a home design

Here's How a Seattle Plan Was

AMERICAN BUILDER *Selected Homes*

MATERIALS USED

- Barrett S.I.S. roofing paper
- Bon-Air jalousies and doors by Summerlin Bros. Millwork, Daytona Beach
- Bostwick expanded metal corner bead
- Samuel Cabot, Inc., redwood stain
- Crane tubs and plumbing fixtures
- Daytona Sheet Metal Works cement shingle roof tile
- Douglas fir plywood for kitchen cabinets
- Frantz garage door hardware
- Hotpoint electric dishwasher
- Lumite screen wire
- Minneapolis Honeywell thermostat
- Mosaic tile
- Precision attic stairway
- Schlage locksets
- Stanley hinges and butts
- Tennessee Quartzite from Tennessee Stone Co.
- Unique balancers for wood double hung sash
- U. S. Gypsum rock lath, fibered plaster and sheathing
- Waste King garbage disposer
- Wood Life preservative

WHILE READING the February 1951 issue of the *American Builder*, Oscar Clarholm, home builder of Daytona Beach, Fla., became much interested in photographs showing a house built in Seattle from a plan by Hamilton Eckert, architect. Although designed for a setting thousands of miles distant from Daytona Beach, this house struck Clarholm as being very adaptable to certain river front property which he was developing. He promptly placed a long distance call for Eckert and arranged for a set of plans by air mail so that he could build the house in Daytona Beach, with the few minor changes noted here.

Says Clarholm: "The house turned out to be suitable in every way for this locality and has created exceptional interest."

Key to Changes Made in Plan for Florida House

1. Stationary glass to the right of the front door was changed to glass jalousies of the same size, in obscure glass.

2. Short wall to left of phone location in entry hall was eliminated. This area was made to serve card table storage, a cabinet above the table storage, and a small panel of open shelves to right of phone.

3. Short separation wall between living room and dining room was deepened to include a generous bookcase that faces the fireplace. The entire wall area of the dining room from this bookcase around to the angle break on the outside wall was paneled with Piech Pine from South America. So was the double-action door to the kitchen.

4. Entire wall surrounding fireplace was changed to Tennessee Quartzite. A step 2 feet high formed the hearth and ran the total length of this wall. By straightening the wall an extra closet was provided for the bedroom behind it.

5. Outside doors to bedrooms were eliminated, large window openings being centered in the ends of the rooms. These consist of plate glass in the center, with wood double-hung sash at each side of the plate.

6. Narrowing the linen closet in the hall made it possible to construct a built-in dresser in the bedroom, using the space next to the chimney (originally given to television space).

7. Both of the small bedrooms were widened one foot, as was the master bedroom and bath. This made room for a tile shower stall with a glass door in master bathroom (where toilet was shown on original plan). The toilet was moved to the opposite wall, and one lavatory was eliminated.

8. Large window opening in the front bedroom was centered, and the plate glass, double-hung combination was used.

9. A disappearing stairway to attic storage space was installed in the bedroom end of the hall ceiling. Space over the bedrooms was floored for storage.

10. The electric wall panel was moved to the furnace room.

11. Furnace room walls and ceiling were covered with acousti-tile for soundproofing.

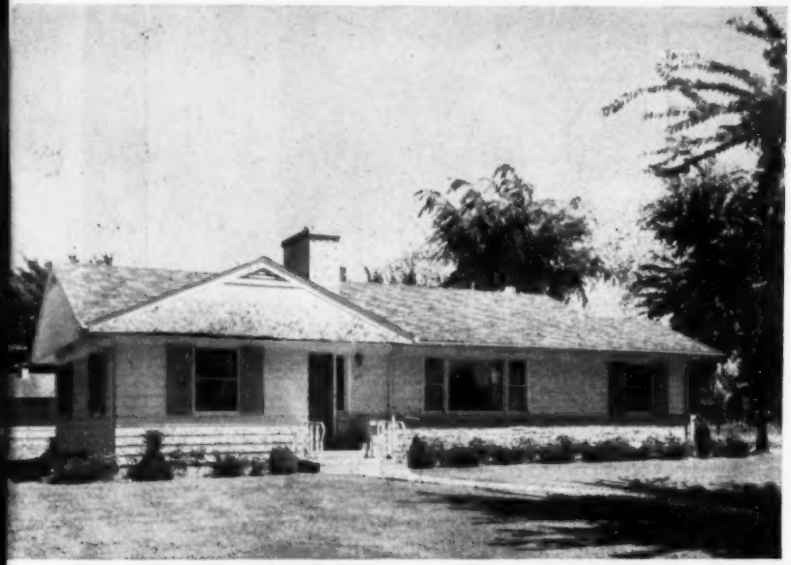
12. Sash in the living room, dining room and breakfast room were changed to glass jalousies.

FLOOR PLAN

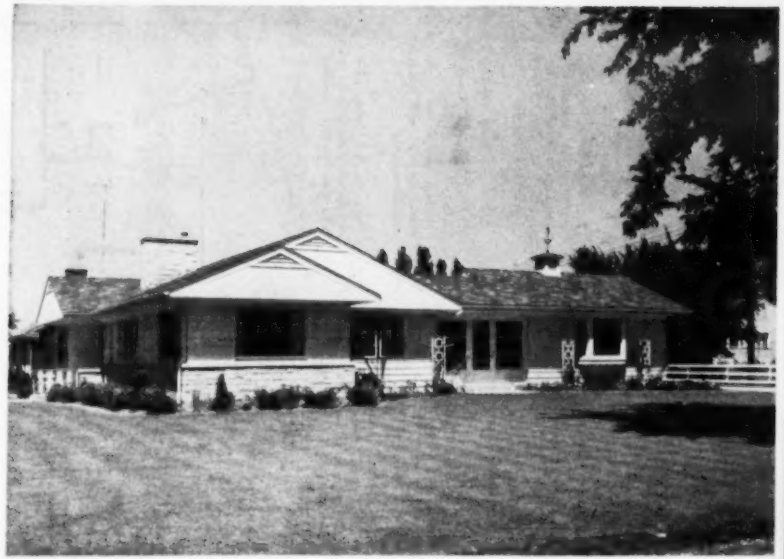
Adapted for Florida

TWIN of a house designed and built originally in Seattle. This one is in Daytona Beach, Fla.

AMERICAN BUILDER BLUEPRINT HOUSE



Principal street view showing front entrance to house



Side street view showing enclosed breezeway and garage extension

Here is a Good Plan for Corner Lot

DESIGNER:
J. R. Thumm, Aurora, Ill.

BUILDER:
Peter G. Assel, Aurora, Ill.

First floor, excluding garage and breezeway, 1,574 square feet.
Garage and breezeway 570 square feet.

For complete one-quarter inch working plans of this house write *American Builder* Home Plan Service, 30 Church St., New York 7, N. Y.

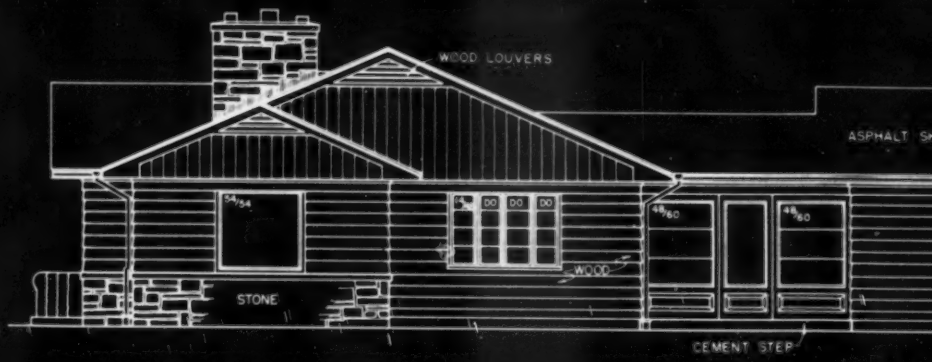
A WIDE CORNER LOT, with deep setbacks on both fronts, provided an ideal setting for this house of excellent proportions. It is a low ranch-type that blends contemporary and traditional motifs and materials. The wide roof overhang occurs both on the eaves and gables.

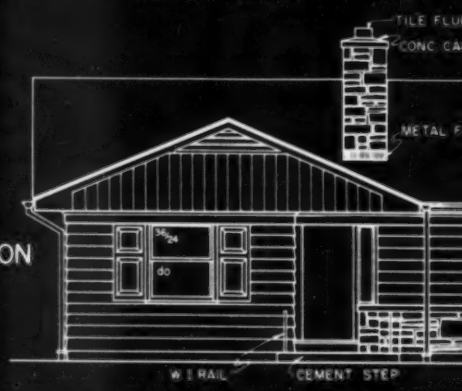
On the side street front, the designer recognized the deadly effect of a long unbroken garage wall, and therefore inserted a bay window, which, together with the breezeway arrangement, makes this view one of the most attractive features of the house.

The plan reflects the extensive effect of the exterior. While the house is basically considered to have five rooms, all of them of generous size, the breezeway, two-car garage, dinette, and other additional areas including closets and stairs, give an illusion of greater size.

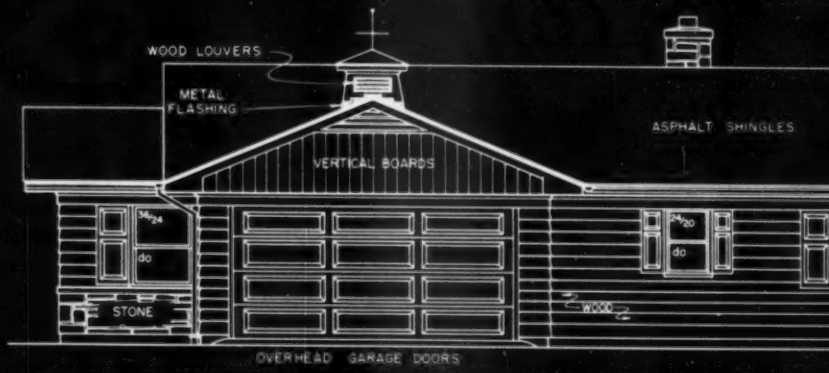
Rooms are arranged to provide maximum comfort for the occupants. Bedrooms are placed at the far end of the house, away from the noise of the other rooms but convenient to the bath.

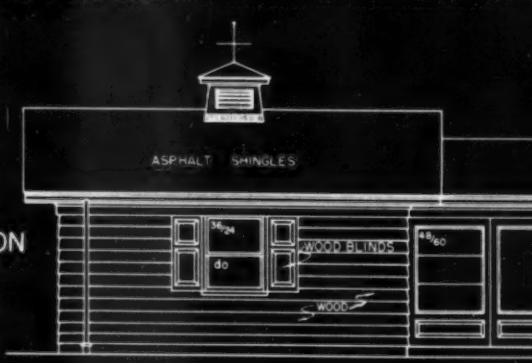
House is frame, resting on a concrete foundation. Exterior Lannon stone is applied as a veneer over a portion of the frame wall. The roof is 5-12 pitch covered with asphalt shingles.





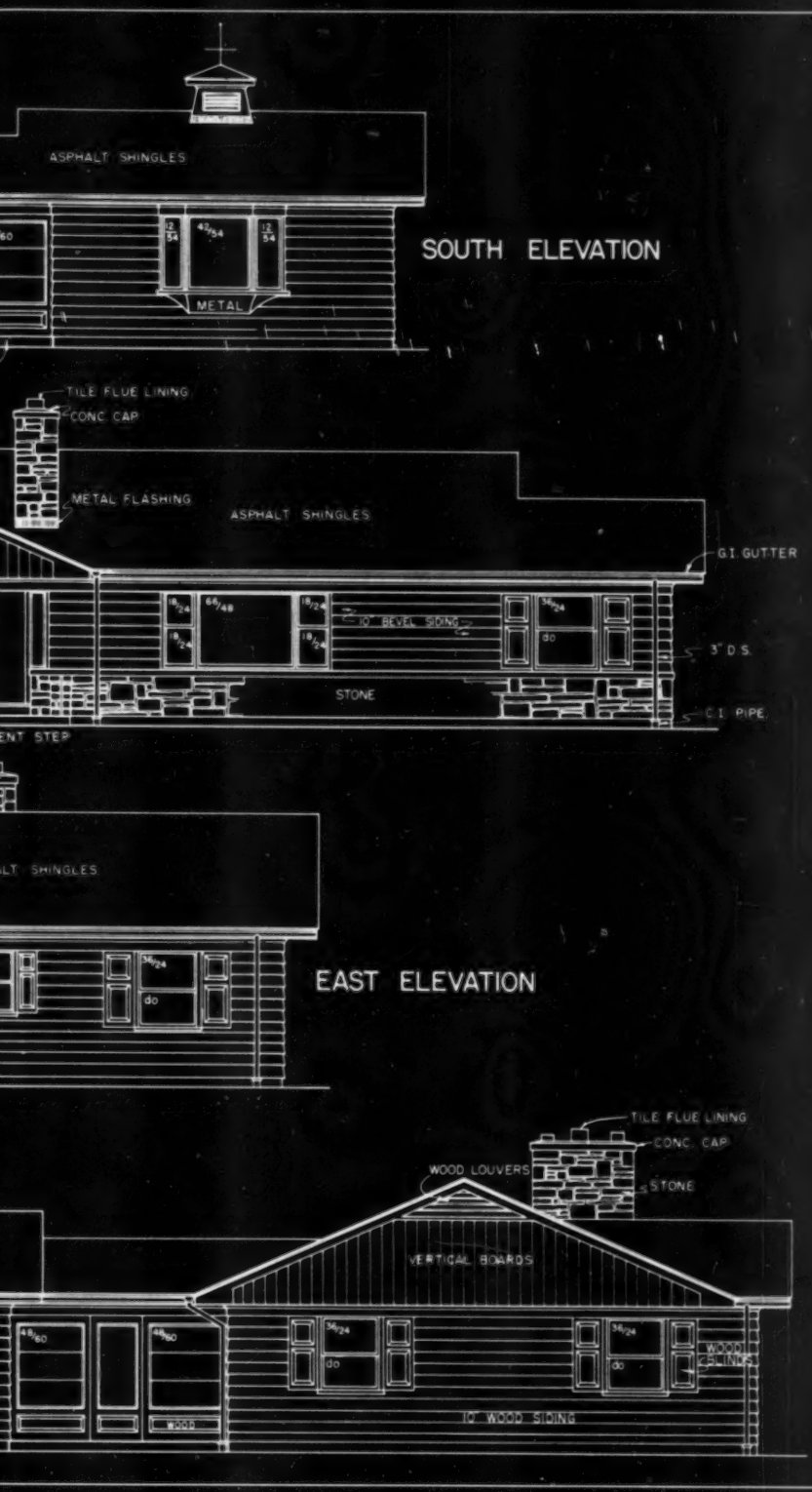
WEST ELEVATION



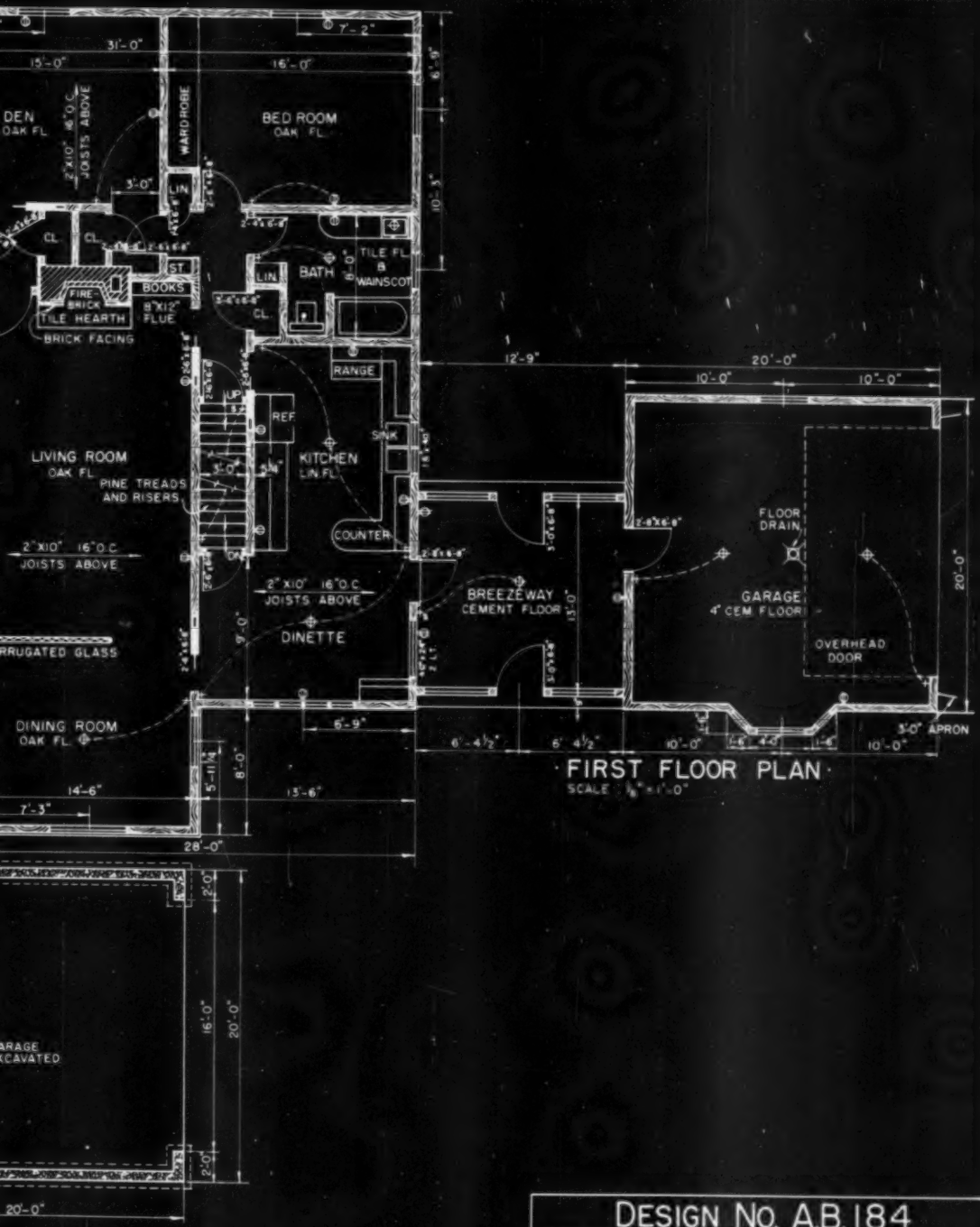


NORTH ELEVATION

SCALES 1/8" = 1'-0"


ASPHALT SHINGLES
SOUTH ELEVATION
METAL
TILE FLUE LINING
CONC. CAP
METAL FLASHING
ASPHALT SHINGLES
G.I. GUTTER
10" BEVEL SIDING
do
3" D.S.
STONE
C.I. PIPE
EAST ELEVATION
do
TILE FLUE LINING
CONC. CAP
WOOD LOUVERS
STONE
VERTICAL BOARDS
do
do
WOOD CASING
10" WOOD SIDING
WOOD

125'-0"
63'-9"
30'-0"
52'-0"
31'-3"
53'-0"
3'-0"
24'-0"
53'-2"
32'-0"
SCALE 1/32" = 1'-0"
9'-0"
9'-0"
LOT LINE
PLOT PLAN
METAL GRILLE
31'-0"
VENT
10"
VENT
UNEXCAVATED - CRUSHED STONE FILL
4'-0" BELOW FLOOR JOISTS
2"X10" 16" O.C. JOISTS ABOVE
13'-6"
3'-0"
3'-0" X 3'-0" OPNG.
6'-6"
5'-6"
PORCH UNEXC.
FURNACE
FORCED AIR
GAS FIRED
H.W.
4" LALLY COLUMN
W.C.
UP
2"X10" JOISTS 16" O.C. ABOVE
PLANK TREADS
OPEN RISERS
DO
10'-3"
TUBS
4" LALLY COLUMN
BASEMENT
CEM. FLOOR
FLOOR DRAIN
STEEL BEAM
CONC. FOOTING
18" X 10"
14'-6"
13'-6"
12'-9"
8'-0"
METAL AREAWAY
28'-0"
METAL AREAWAY
BREEZEWAY
UNEXCAVATED
13'-0"
GARAGE
UNEXCAVATED
20'-0"
FOUNDATION PLAN
SCALE 1/8" = 1'-0"
7'-2"
15'-0"
6'-9"
19'-0"
DEN
OAK FL.
2"X10" 16" O.C. JOISTS ABOVE
PLAT-FORM CEM. FLOOR
CL.
CL.
FIRE-BRICK
TILE HEARTH
FLOWER BOX
IRON RAILING
BRICK FACING
53'-0"
34'-0"
17'-3"
LIVING ROOM
OAK FL.
2"X10" 16" O.C. JOISTS ABOVE
CORRUGATED GLASS
DINING ROOM
OAK FL.
5'-11¼"
14'-6"
7'-3"
8"



FIRST FLOOR PLAN

SCALE: ⅛" = 1'-0"

PLAN

DESIGN NO. A.B. 184

AMERICAN BUILDER BLUE PRINT SERIES

Designed By

John R. Thumm
244 Westlawn Ave.

Designer
Aurora, Ill.

Simmons Boardman Pub. Corp., 79 W. Monroe St., Chicago, Ill.

Quantity List of Materials

For American Builder Blueprint House No. AB 184

John R. Thumm, Designer

General Information

House — Type	Frame
Area	1,480 sq. ft.
Cube	26,640 cu. ft.
Height taken for cube was 18 feet	
Garage — Area	400 sq. ft.
Cube	4,400 cu. ft.
Height taken for cube was 11 feet	
Porch — Area	165 sq. ft.

Excavating

Trench for foundation	157 lin. ft.
Chimney and column footings	2 col. footings 24"x24"x12"
	1 fireplace footing 84"x42"x12"
Excavation for basement	305 yds.

Cement Work

Foundations	1,600 cu. ft.
Concrete work	1,380 sq. ft.
Anchor Bolts	60 — ½"x8"
Waterproofing	950 sq. ft.
Foundation vents	2
Miscellaneous	3 metal areaways

Masonry

Type	Stone
Walls	150 sq. ft. stone veneer
Window sills	65 lin. ft. stone sill
Chimney	175 cu. ft. stone & brick
Flue lining	16' — 12"x12"
	24' — 8"x12"
Cap	Concrete
Fireplace	Brick face
	Tile hearth 9 sq. ft.
Throat and damper	1
Lintels	1
Miscellaneous	Masonry flower box

Iron Work

Structural	480 lbs.
Lally columns	2 — 4"
Metal railings	2 — 3" each

Millwork

Windows — Type	Casement D.H. and Fixed
Windows glazed including trim	Double hung: 1 — 40"x24"
	7 — 36"x24"
	1 — 24"x20"
	Casements: 4 — 14"x48"
	2 — 16"x40"
	Fixed: 4 — 48"x60"
	1 — 54"x54"
	Triple sides D.H. — 18"x24"
	Center, fixed — 66"x48"
	Bay sides casements — 12"x54"
	Center, fixed — 42"x54"
Exterior doors	Sash doors 2 — 3'0"x6'8"
	2 — 2'8"x6'8"
	Flat slab 1 — 3'0"x6'8"
Garage door	Upward swinging 1 — 16'x7'
Exterior millwork	8 pair shutters; 1 entrance fascia with side light; 5 peak head louvers; 1 cupola; wood panel breezeway rails
Interior doors including jambs and trim	1 — 3'0"x6'8"
	9 (4 sliding) — 2'6"x6'8"
	3 — 2'4"x6'8"
	1 — 1'4"x6'8"
Special interior millwork	1 corrugated glass partition, 1 dinette case, 1 set kitchen cases, 1 living room bookcase, 1 bathroom lavatory cabinet, 1 linen cabinet, 1 wardrobe

Carpentry

Foundation plates	22 — 2"x 4" — 12'
Joists	73 — 2"x10" — 12'
Bridging	600 lin. ft. 1"x3"
Studding and plates	300 — 2"x 4" — 8'
	20 — 2"x 4" — 10'
	30 — 2"x 4" — 12'
Ceiling joist	73 — 2"x10" — 14'
	10 — 2"x10" — 12'
	14 — 2"x 6" — 14'
	4 — 2"x 6" — 20'
Roof rafters	42 — 2"x 6" — 10'
	20 — 2"x 6" — 12'
	32 — 2"x 6" — 14'
	70 — 2"x 6" — 18'
Framing lintels	2 — 2"x12" — 18'
	4 — 2"x10" — 14'
Subfloor	1,400 sq. ft. area to be covered
Roof sheathing	2,850 sq. ft. area to be covered
Side wall sheathing	1,800 sq. ft. area to be covered
Side wall materials	1,275 sq. ft. bevel siding area
	185 sq. ft. vertical boards
Carpenter stairs	4 — 2"x12" — 16'
	27 — 2"x10" — 3'
	15 — 1"x 8" — 3'
	2 — 2"x 4" — 10'
Flooring	Hardwood — 900 sq. ft. area to cover
	Softwood — 265 sq. ft. area to cover
Exterior material	
Soffits	420 sq. ft. area to cover
Eaves	300 lin. ft. 1x6 fascia board
Porches	165 sq. ft. breezeway ceiling
Insulation	1,500 sq. ft. residence ceiling only
	Extent of insulation not shown

Rain Conduction

Gutter	142 lin. ft.
Downspouts	60 lin. ft.
Flashing	Chimney and cupola
Miscellaneous	Sheet metal under bay

Roofing

Type — Asphalt shingles	Area: 29 sq.

Interior Walls

Area to be covered	4,620 sq. ft.

● *This quantity list will be subject to variation depending on the common practices in various sections and municipalities of the country, the techniques of individual builders, the types of materials available locally and cost factors. The list published here is a suggested one, complete enough so that it can be used in arriving at a reasonably accurate estimate of the quantities and cost of materials that will be required to complete the structure. It was prepared by experts at the Edward Hines Lumber Co., Chicago.*

Built on a hillside, the house has a balcony cantilevered out on the west side, off the living and dining rooms. An unfinished basement houses future recreation room, den or bedroom, with bathroom, and laundry. Siding is 1x8-inch t&g redwood coated with Cabot's redwood stain

Clever Economies Produced This Contemporary At $7.82 a Square Foot

AMERICAN BUILDER *Selected Homes*

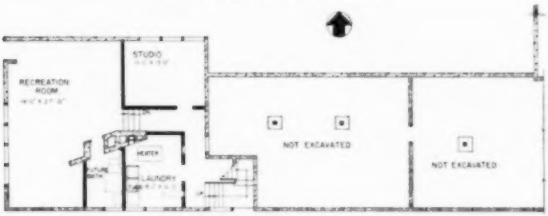
Entry hall has a Plexiglass blister to admit daylight

THROUGH an unusual roof construction and certain other economies Warren Weber, architect of Portland, Ore., achieved many interesting and attractive features in this contemporary house at the exceptionally low cost of $7.82 per square foot. In figuring this cost, one-half of the areas of the unfinished basement, the carport and the covered walk and one-quarter of the area of the balcony were included. The house was built by the Donaca Construction Co. of Portland.

Weber states that the greatest saving as compared with conventional construction came from the flat roof. Steel beams span the 28-foot width, resting on 4x4-inch posts, and these support the wood ceiling joists. The ceiling is 2x6-inch hemlock with ½-inch by 2-inch battens covering the joints; they are coated with Transkote, a water clear sealer.

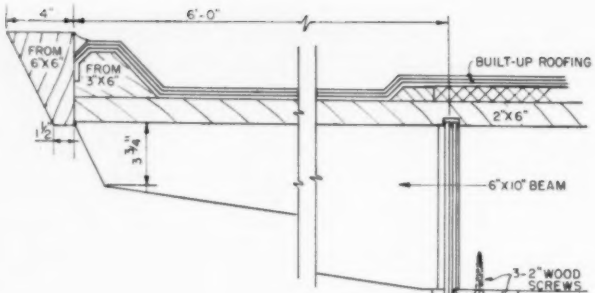
Other economies include: plate glass set against posts with simple wood stops; bedroom windows made with three sash in one frame, the center unit operating, and the other two fixed; back of fireplace left exposed to the kitchen; concrete hearth.

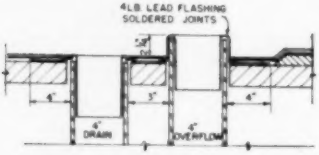
View of kitchen toward dining room door. Cabinets are installed against unplastered back of fireplace



Porch with railing of woven 1x6-inch redwood leads to entry from carport

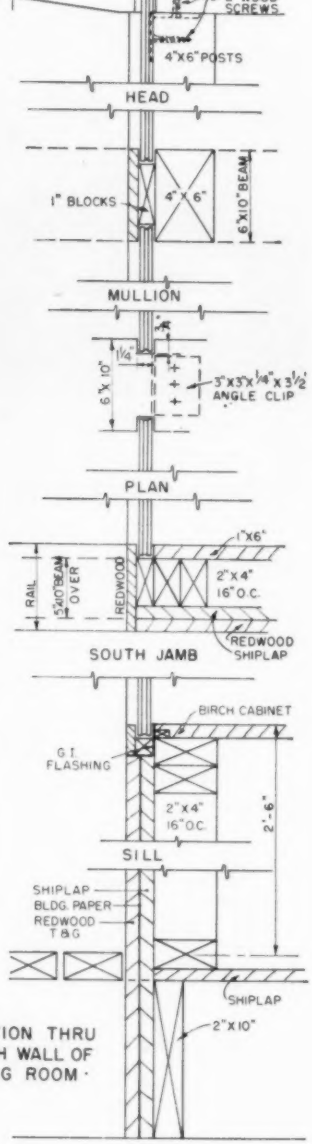
Section through north wall of living room —a glass wall—showing economical manner of installing Thermopane. Note also built-up roofing stop at eaves



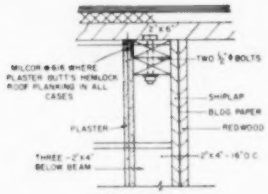


Roof drain and overflow detail

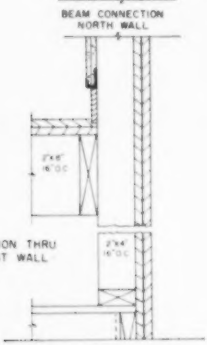
Looking from living room toward dining room. Note the cabinets and wide counter top along the windows to balcony



·SECTION THRU NORTH WALL OF LIVING ROOM·



BEAM CONNECTION NORTH WALL



SECTION THRU WEST WALL

BRAND NAME PRODUCTS USED

- Armstrong linoleum
- Bendix washer
- Cabot's Stain
- Durasteel ironing board
- Milcor steel
- Rolscreen
- Schlage locks
- Sisalkraft paper
- Standard fixtures
- Thermopane
- USG gyplath

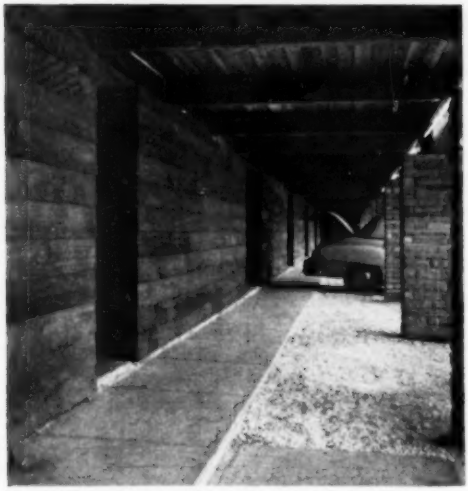
Solid front wall blocks off highway distractions. Overhang is valuable in inclement weather

Here Is A New Look In Motels

LOCATION:
Orchard Court Motel, Lake Zurich, Ill.

ARCHITECT:
Shweiker and Elting, Roselle, Ill.

BUILDER:
Elmer Reese, Woodstock, Ill.



Eleven-foot overhang enables guests to unload luggage under cover

This new approach in motel design minimizes the usual highway distractions with a solid front wall facing traffic. Fenestration for guest rooms is at the rear overlooking a pastoral scene.

The flat roof design features an 11-foot overhang. Redwood siding, slab doors, and stone are combined on the exterior. Interiors are birch plywood with marine plywood used as the wall material in the baths.

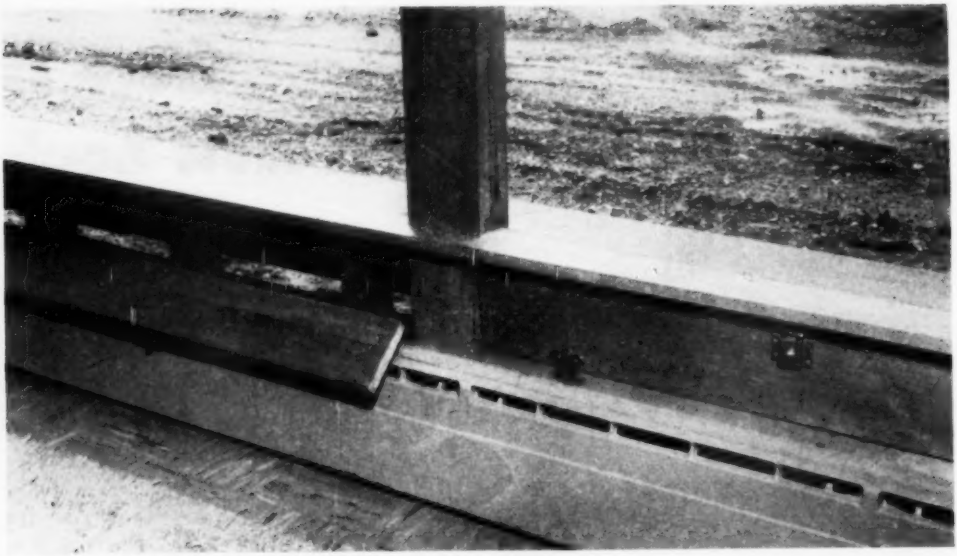
Post and beam framing was used. Beams are 4x12's bearing on 4x4 posts placed 13 feet, 6 inches on center. Beams are dowelled into position with two ⅜-inch steel rods. All interior walls are non-bearing.

Ceilings are No. 2 or better D&M sheathing with 2-inch rigid insulation nailed to the sheathing with large headed foundry nails. A built-up roof covers the insulating material. Finishing the 3,240 square feet of D&M presented a problem to the builder. The low bid for the job was $1,500 for sanding and sealing. In lieu of the $1,500 sanding-sealing bid, the builder employed the services of a sand blaster to clean the D&M for $475. This method proved satisfactory.

Guest rooms are ventilated through panels below the rear fixed plate glass areas and over the doorways. Heating is perimeter forced hot water baseboard.

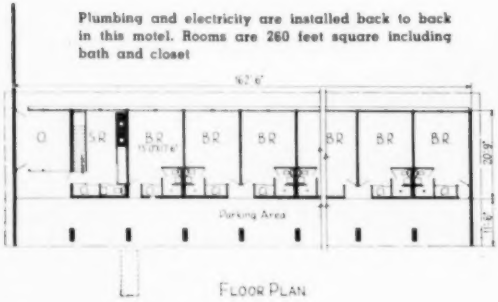
Plans and details on following pages

Large fixed glass areas in the rear overlook a pastoral scene. Ventilation is through panels below windows



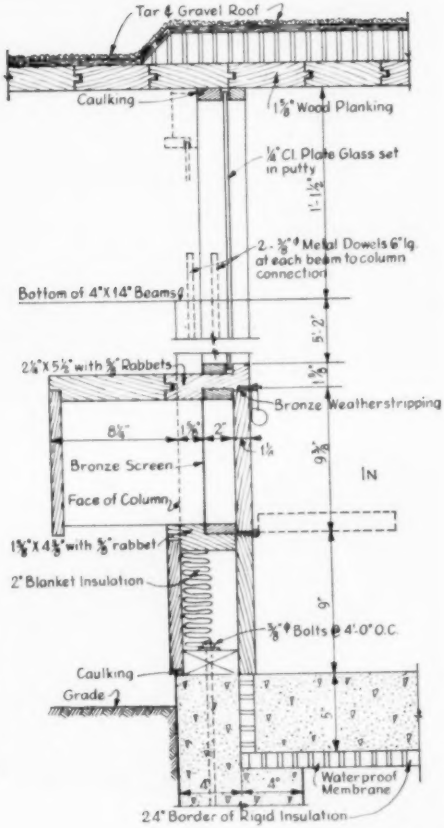
Ventilating panels are located between the window stool and the baseboard heating unit. Front of sill is faced so rain cannot enter through the ventilator

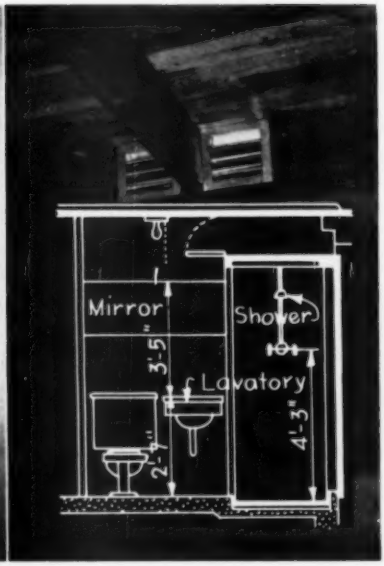
Floors are asphalt tile over a cement slab. Fixed glass, wood ceilings, and plywood walls carry out the ranch design



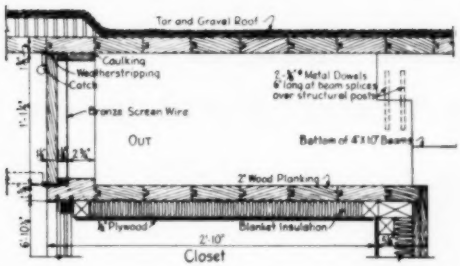
Plumbing and electricity are installed back to back in this motel. Rooms are 260 feet square including bath and closet

FLOOR PLAN



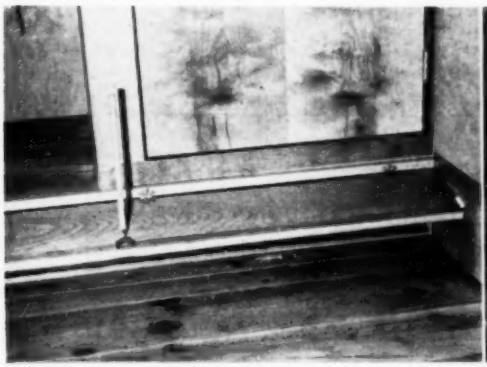


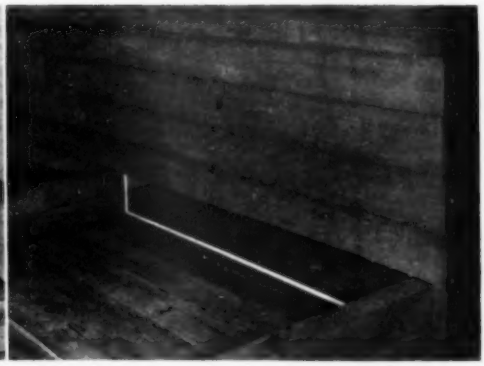
Bathroom walls are marine plywood. The ventilating panel is above and to the left of the fluorescent fixture. Air is channeled through louver in the exterior wall. The lowered ceiling in the shower stall forms the duct



Screened opening allows air to enter the guest room. Closet ceiling is lowered to form the duct. Ventilating panel over doorway is raised and lowered with the aid of a dowel rod attached to the transom catch

Office window is the only glass area facing the front of the structure. Heavy beam construction can be seen at the top of the side wall. Plywood panels cover all walls





This 1062 square foot, two-bedroom house sells for $18,000. Three variations are available

How a Builder Makes Custom Changes In a Project Development

Terre Haute project builders re-design standard plans to suit individual needs

ORDER FOR CHANGE OR EXTRAS

(Change to Original Contract)

No. _____ Date _____

To _____

Contractor _____

Address _____

This form is used for changes. Owner lists them, builder prices them for addition to the original contract

BUYERS are not turned away because they don't care for certain small features of Newlin and Johnson's houses in Terre Haute, Indiana. If the stock plan is not to a prospect's liking he is encouraged to order changes.

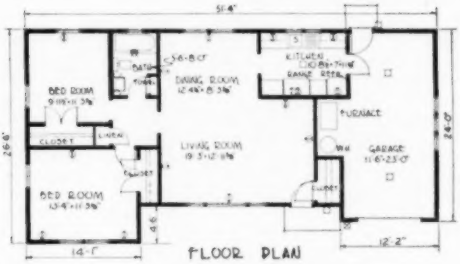
These custom deviations have given the firm a selling edge in the hard hit Regulation X bracket of $15,000-$20,000. The Newlin and Johnson concern likes to be referred to as semi-custom project builders because of the low-priced changes made possible by their mass production, precut operation. Their fair pricing of the changes plus allowing certain other custom details have made their houses easy to sell. "Satisfied customers spur sales for us. We need very

"6. The Owner may at any time during the progress of the said building make any alterations, deviations, additions, or omissions to or from the said contract, and the same shall in no way affect or make void the contract, but the difference in cost thereby occasioned shall be added to or deducted from the amount of the contracts as the case may be, by a fair and reasonable valuation.

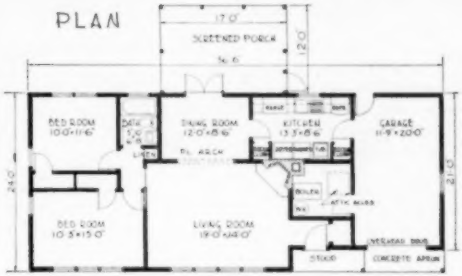
"7. Should the Builder at any time during the progress of the work refuse or neglect to supply a sufficiency of materials or workmen, the Owner shall have the power to provide materials and workmen, after three days' notice in writing being given, to finish the said work, and the expense shall be deducted from the amount of the contract."

Clauses in contract allow owner to order alterations of plan

Standard two bedroom plan features small dining room and kitchen. House, 51 feet 4 inches by 26 feet 6 inches, sold for $15,500. Note location of utility room



Custom plan of the two-bedroom model relocates utility room and increases the size of the dining room and kitchen. Guest closet was moved. No additional cost was charged the owner for these partition changes



Enlarged plan added 5 feet 2 inches to the length. Corner fireplace, a rear screened porch, and utility room have been added. A Bedford stone veneer front coupled with these other changes increased the price $2,500

little advertising," is the way the heads of the firm sum it up.

From the start of negotiations their policy and contracts allow changes and make provisions for the additional cost. About 35 per cent of a company project involves custom planning before construction begins. Even after the house is under way certain minor additions or curtailments are permitted.

When a buyer feels that a plan other than the standard one best suits his needs, the builder draws new plans for that job. Specifications for the changes are set up and a firm contract is signed. All charges include building to the specifications, equipment, lot, street improvements, utilities, grading, and seeding of the front and side yard.

Most variations involve added space and the moving of partitions. The secret in low cost custom changes is in restricting changes to the width of the house while allowing varia-

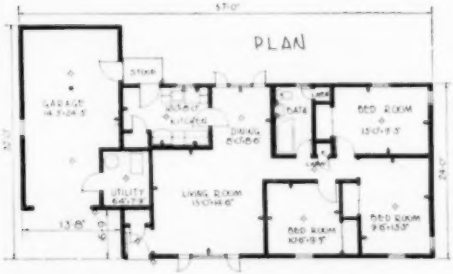
Dining area off kitchen has French doors leading to enclosed screen porch. Hot water radiant floor heating is used in this model. Floors are covered with asphalt tile

The three bedroom house has four variations. Major changes must be specified before construction work begins. Minor changes can be made later

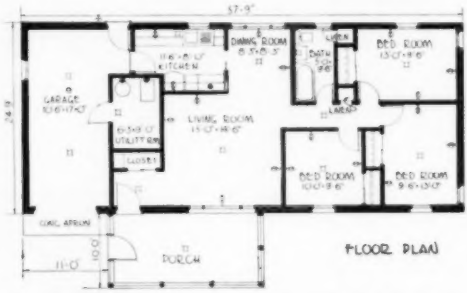
tions in the length. This does not interfere with the builders' pre-cut assembly line techniques where pre-cut joists and rafters remain usable in both standard or custom houses.

Many minor changes, where only partitions are moved and no added material or labor is involved, are not charged to the buyer. The builder takes the attitude that maybe that's the way the plan should have been.

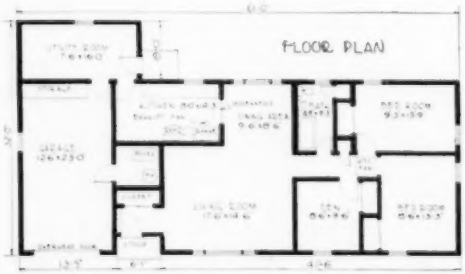
Other details that add a custom touch to this firm's work are the handling of lighting fixtures and decorating. Buyers are sent to local concerns for paint, wallpaper and lighting fixtures. The local paint store has an interior decorating service which helps the home buyer choose his interior decor, and the builder is furnished a sample of the colors for his painters to follow. The form, sent to the builder, is filed for possible later emergency use. For lighting fixtures, a cost code has been set up for each bracket. Buyers choose their fixtures and may or may not stay within the specified budget. If they spend more they pay the difference. If less, they have a refund due them.



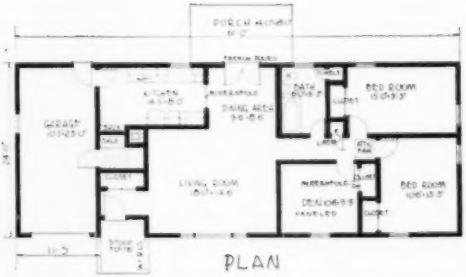
The standard three bedroom plan has small dining and living room. Entrance to the utility room is through garage. House is 57 x 24 feet, sold for $17,000



Only nine inches have been added to standard plan in this house. Major construction changes are in utility room, entry way, and kitchen-garage entrance. These changes coupled with a front porch cost $1,500 extra



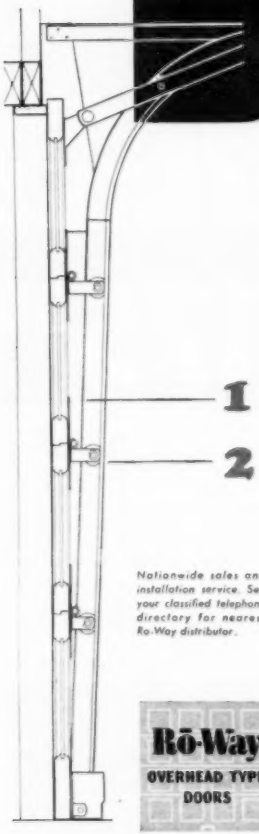
Length in this plan has been increased 4 feet. A separate utility room has been added at the rear of the garage. Increased length made larger rooms. Masonry veneer plus more land cost $4,000 over standard plan



$5,000 additional cost gave the buyer a lot and a half plus a basement. Basement entryway uses heater room space. Other changes are glass paneled walls in the bath, attic fan, larger kitchen and dining area, rear porch, and larger master bedroom

again

Rō-Way pioneers garage door improvements



with two Outstanding new features

Just as America's leading makers of cars, trucks and buses are constantly pioneering automotive improvements, so Ro-Way continues to pioneer door improvements for the garages that house these vehicles. That's why you can always depend on Ro-Way Overhead Type Doors to embody the most advanced design and engineering features.

As an example, take Ro-Way's two newest developments—

1 TAPER-TITE CLOSURE—Vertical tracks taper away from jambs at a pitch of ¼" per door section. In "down" position, door is snug-tight against the weather.

2 SEAL-A-MATIC HINGES—an exclusive design of graduated height—guide the closing door tightly against side and head jambs. On opening, the hinges instantly free the door from jambs to provide easy, frictionless operation.

Pace-setting features like these—plus Power-Metered springs, Double-Thick Tread rollers, and other outstanding Ro-Way developments—make Ro-Way first choice in overhead type garage doors.

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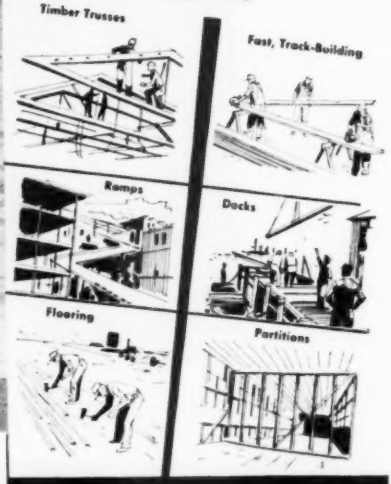
there's a Ro-Way for every Doorway!

Man! Here's a saw that EATS UP heaviest work!

Extra heavy duty —All ball bearing

For heavy construction industry



magic • pivot MAXAW 1000 ... $175.00

Blankets 10-inch Saw Field in Depth of Cut

This all ball-bearing MAXAW 1000 is built for downright brute strength . . . for bull-dozing through green, soggy lumber or timbers filled with nails, slugs or concrete. Cuts 3 7/16-in. straight and 2 13/16-in. at 45°.

This is the giant of the MAXAWS in performance, yet is so well designed and precision-built that it weighs only 22 lbs., puts less handicap on the user. **magic • pivot** does it!

Handle of the MAXAW 1000 is placed at the balance-point—so you have easy control whether working on floors, saw-horses or scaffolds.

The MAXAW 1000 has specially selected, deep-groove ball-bearings throughout, sealed against dirt and leakage. Worm and wheel gearing add to its ruggedness. It quickly pays for its low, initial cost in faster work output . . . bigger profits from every job.

See the MAXAW 1000 at your industrial or building supply dealer . . . *today*. Priced at $175.00 including case.

HERE'S PROOF! magic • pivot does it!

MAKE	BLADE DIA.	WEIGHT	CUT AT 45°	STRAIGHT CUT	*PRICE
MAXAW 1000	9-5/8"	22 lbs.	2-13/16"	3-7/16"	$175 00
Saw A	10"	31-1/4 lbs.	2-5/8"	3-3/8"	185 00
Saw B	10-1/4"	24 lbs.	2-7/16"	3-3/4"	185 00
Saw C	10"	35 lbs.	2-5/8"	3-5/8"	190 00

*Competitive prices quoted as of Jan. 1, 1952. Saws listed as A, B, C are those made by leading manufacturers of industrial saws.

MAXAW 700

Teamed up with MAXAW 1000's, the MAXAW 700 quickly breezes through on-the-spot cutting with only 10 lbs. of weight to carry and handle. Heavy-Duty—All Ball-and-Roller Bearing—Industrial Quality, makes every cut in all lumber up to 2 x 12's both on 45° bevel and straight cut. Only . . . . . $69.50 (with case, $79.50)

Cummins

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334 Lauder Ave., Toronto 10, Canada

Worried about high building costs ?

Gold Bond Gypsum Sheathing

SAVES NAILS

Saves time and money, too! Cut building costs six ways with Gold Bond Gypsum Sheathing:

1. Saves nails! One 2'x8' panel of Gold Bond Gypsum Sheathing needs only 28 nails against 56 for wood sheathing covering same area.

2. Saves on building paper! New FHA ruling says no building paper or caulking needed over water-repellent Gypsum Sheathing (except under stucco).

3. Saves labor! 50% less time to drive half as many nails. One man can sheathe average-size small home in one day. Up to 60% fewer man hours than needed for wood sheathing.

4. Reduces replacement costs...the new hard-edge on the groove side of every panel prevents on-the-job damage.

5. Lower material costs...about ⅓ less than wood sheathing!

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Slash costs on your next job with Gold Bond Gypsum Sheathing. See your local Gold Bond lumber and building materials dealer for a demonstration today!

Fireproof Gold Bond Gypsum Sheathing gives extra strength, too. Racking tests prove these big knotless panels give greater structural strength than other commonly used sheathing materials. And the core of gypsum rock is asphalt-treated for increased moisture resistance.

You'll build or remodel better with **Gold Bond**

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Fireproof Wallboards, Decorative Insulation Boards, Lath, Plaster, Lime, Sheathing, Gypsum Roof Decks, Wall Paint, Textures, Rock Wool Insulation, Metal Lath and Sound Control Products.

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Your CLEARING COSTS Down to Earth with a

HOMELITE One Man Chain Saw

27 POUNDS
4 HORSEPOWER
MORE POWER PER POUND THAN ANY OTHER SAW

When trees are in the way of the job, cut them down with a Homelite One Man Chain Saw. It's the fastest, easiest, most economical way to do it . . . cuts your clearing costs down to earth.

With this saw, one man can bring down an 18" pine in 16 seconds or an 18" oak in 28 seconds. He can cut trees 48 inches in diameter *or more*. He can do his bucking, limbing . . . clear the whole mess out of there . . . in no time.

Only 27 pounds . . . easily operated by anyone . . . a Homelite has more power per pound than any other saw its size. Because it's the only saw its size with a 4 horsepower engine . . . a *Homelite* engine famous for dependability for more than thirty years.

Ask for free demonstration. Try it yourself. You'll be amazed at its outstanding performance.

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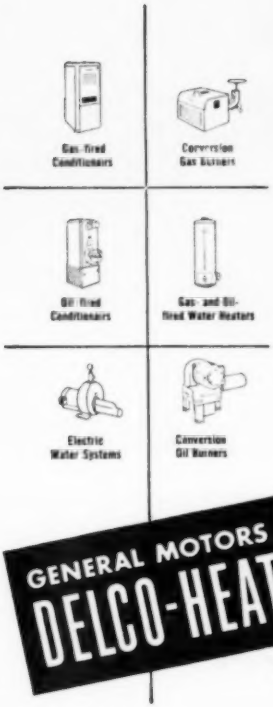
Delco-Heat helps sell Oklahoma homes

Delco Conditionairs *specified exclusively by Lawton builders*

Here's what Andy Crosby, Vice-President and Sales Promotion Director of The Lewis Construction Co., Inc., Lawton, Oklahoma, has to say about Delco-Heat. "Our sales experience indicates Delco-Heat automatic home-heating equipment offers real sales advantages in the homes we build. We are so favorably impressed that we are installing Delco-Heat in all our new homes." Hewett Refrigeration Co. is the Delco-Heat Distributor in Lawton, Okla.

Tom Lewis, Jr. (left), Andy Crosby (right)

"The home pictured here is typical of the ranch-type, two- and three-bedroom homes we built in 1951," writes Tom Lewis, Jr., President of The Lewis Construction Co., Inc. "In this particular development of 75 homes we used Delco-Heat Gas-Fired Conditionairs exclusively."



Eye-appealing cabinet styling . . . competitive prices . . . General Motors dependability . . . consumer acceptance . . . a complete range of burners, warm air furnaces and boilers to meet every builder's needs—are just a few of the reasons why so many prominent builders are turning to General Motors Delco-Heat.

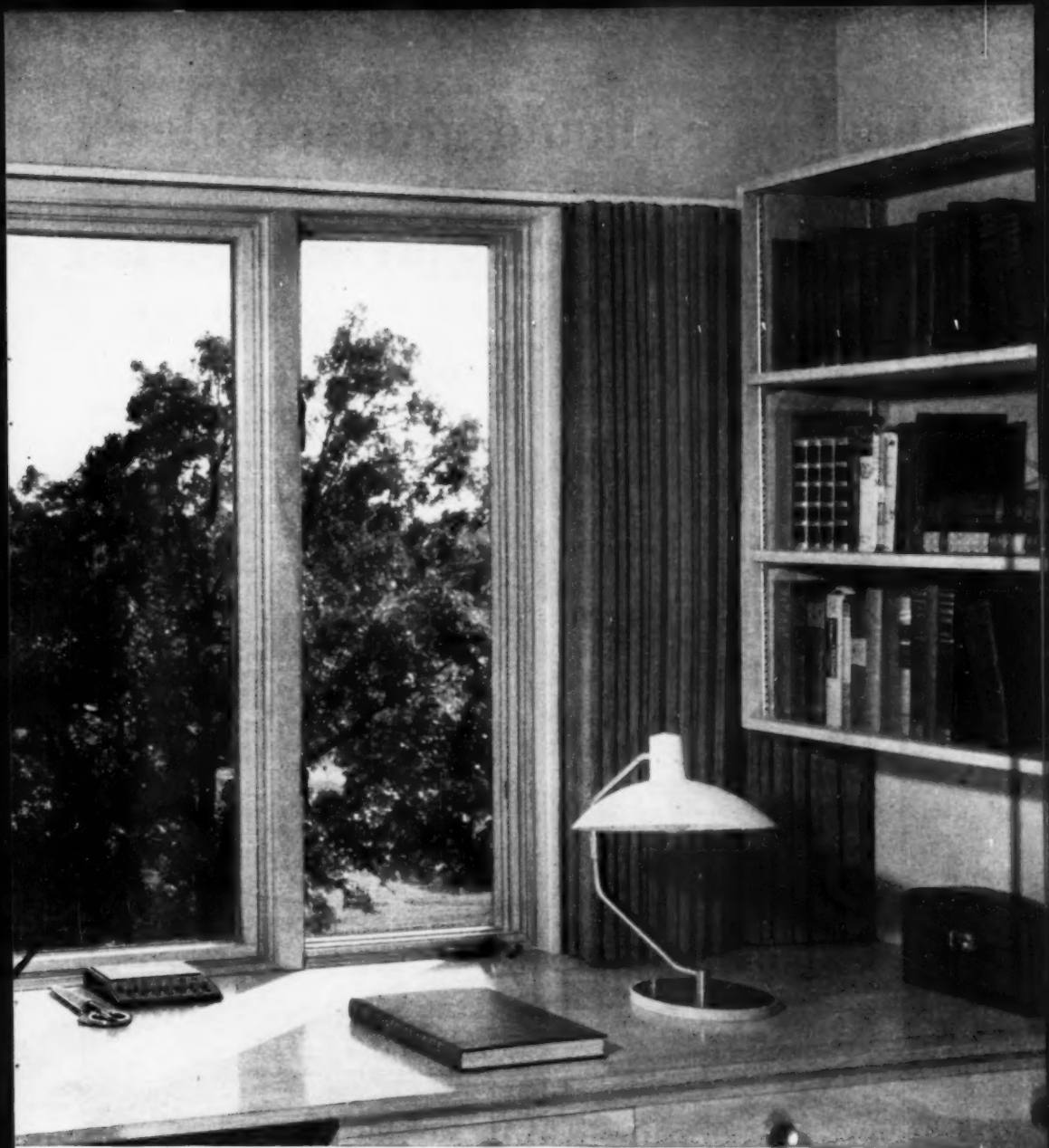
Home owner satisfaction proved in thousands of Delco-Heat installations shows that you can't beat Delco for gas- or oil-fired automatic home-heating equipment. Find out, now, how Delco-Heat can fit into your new home-building plans. See or phone your nearest Delco-Heat Distributor listed in the Yellow Pages of your phone book. Or, for complete information, write Dept. AB, Delco Appliance Division, General Motors Corp., Rochester 1, N. Y.

GENERAL MOTORS
DELCO-HEAT

for a good deal - DEAL WITH DELCO

Andersen Casements now also available in sash width 4½" wider than illustrated here.

FOR BUILT-IN BEAUTY AND COMFORT... ANDERSEN *Windowalls**



A CHANGING PICTURE of nature's beauty always greets the home owner at this desk. Architects Thorshov & Cerny, Inc., planned it that way, when they specified a WINDOWALL—an Andersen Casement Picture Window Unit. They planned for comfort, too. Andersen WINDOWALLS are famous for their beauty as windows, famous for their weathertightness when they serve as wall sections.

*TRADEMARK OF ANDERSEN CORPORATION

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FAMOUS FOR COMPLETE WOOD WINDOW UNITS

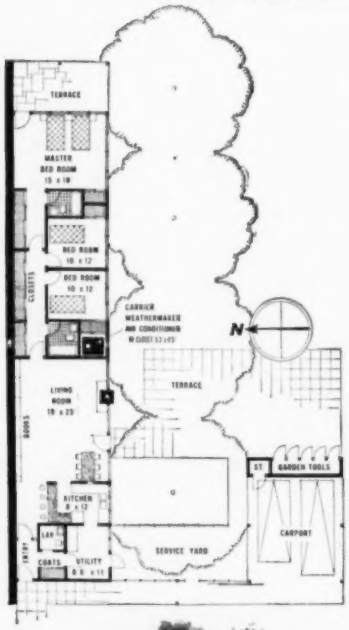
For specification data see your millwork dealer, Sweet's Builders' File or write Andersen Corporation.

Sell Andersen WINDOWALLS For Remodeling Profits

Use WINDOWALLS for porch enclosures. For extra rooms. For attic dormers. For modernizing kitchens.

This house should give you ideas

This is a Carrier Weathermaker Home created by Roy Carroll. It shows you a number of ways in which Carrier Weathermaker Air Conditioning contributed to better house design.



The architects—Carroll, Grisdale & Van Alen is a well known Philadelphia firm whose recent work includes the Youth Study Center on Benjamin Franklin Parkway and the Terminal Building, Philadelphia International Airport (now in progress).

The Carrier Weathermaker
is designed for a duct system like that used for forced warm air heating. The Weathermaker cools and heats. It burns gas for heating . . . uses a sealed electric refrigerating unit for cooling. It is only a little larger than an ordinary furnace.

It influenced the design

This Weathermaker Home contains more usable space per building dollar. That's possible because it makes functional use of its air conditioning. Because the new Weathermaker is specially designed for homes, it insures that the air you live in is healthful and comfortable, so the rooms have only one exposure. Only a few movable sash are required. The floor is a simple rectangle. Baths are placed in the interior.

It helped pay for itself

This Weathermaker Home makes air conditioning economical. The design makes the house less expensive to build. The design reduces the first cost of the air conditioning. An overhang over the south windows . . . trees shading the roof . . . help to reduce the cost of summer cooling. A solid wall to the north helps reduce the cost of winter heating.

It made a better home

This Weathermaker Home is a more convenient home. A windowless wall gains space for storage. Windows, doors and closets are placed to allow the greatest freedom in furniture arrangement. The living and dining areas are completely open and interlacing, while the sleeping areas are completely private. And, of course, the Weathermaker keeps the house far cleaner, far more quiet, and infinitely more comfortable. *Of course, this is just one approach. There are many more. How would you do it?*

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City _____ *State* _____

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YOU can count on the fact that Better Homes & Gardens' 3½-million families are in the market for *everything* in building supplies.

They're all enthusiastic home-improvers, undertaking nearly 1¾-million jobs a year. Their homes and incomes are bigger—and 7 out of 10 families *building* homes read BH&G avidly!

That's because BH&G is entirely devoted to *practical* ways to improve one's surroundings, to make life more complete.

No doubt about it, building supply ads get a better break from the BUY-minded readers of BH&G.

BH&G BUYOLOGICAL BRIEFS

- *A MAJOR WOOD-SPECIALTY manufacturer's representative, within weeks of the BH&G ad, followed up 17 inquiries in Milwaukee alone and closed 17 sales!*
- *OPERATIVE BUILDERS say their customers mention BH&G more than any other magazine.*
- *BUILDING SUPPLY DEALERS (7-to-1) rate BH&G as greatest selling aid of all major magazines!*

MEREDITH PUBLISHING COMPANY, Des Moines, Iowa

Turn the knob on Dunham's new damper and you're set for most effective heat distribution. Why overheat when it's so easy to "put the damper on" heat output? And why let air swirls and eddies cut down good convection when this Dunham damper *directs* air through the louver grille?

And since the Dunham grille is an *integral part* of the heavy, sheet steel front . . . there are no separate panels to rattle, no bolts or welds to loosen. Just a sturdy *one-piece* front and grille.

You're set for better heat . . . for a longer time . . . when you have Dunham Convectors. Write for further facts.

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DUNHAM CONVECTOR RADIATION

ANOTHER QUALITY PRODUCT OF C. A. DUNHAM COMPANY—CHICAGO • TORONTO • LONDON

The 2-bedroom "New Bermuda" has 785½ square feet. Priced at $3,995 plus $495 for attached garage which includes complete laundry facilities. Two TV aerial outlets are built into every house. Construction is frame covered on outside with stucco, including a brush color coat, and on the inside with insulating plaster containing color in the finish coat. Roof is insulating Dolomite under three layers of roofing paper and asphalt. Birch slab 3-light front door, with gum slab doors inside. Woodwork is painted, and kitchen and bathroom walls are stippled enamel

Selling Houses Today at 1948 Prices

Two designs only—and strictly standardized steps in the construction process—are producing low price houses for the Lucky Homes company in California

3-bedroom "Wonder Home" has 984 square feet plus garage. Priced at $4,995 and $495 extra for the garage and full laundry equipment. A feature of this home is the lanai (patio) with French doors leading from convertible bedroom-den. Popular for outdoor dining and entertaining, the lanai is enclosed on three sides and completely roofed. It makes a unique sales point

LUCKY HOMES of Monte, Calif. are selling 2-bedroom houses, built on buyers' level lots at $3,995, the same price at which they were sold in 1948. However, if the buyer does not want the attached garage which costs $495 additional and includes laundry facilities, a charge of $200 is made to place the laundry tub and water heater inside the house.

This price has been maintained despite rising costs of materials and labor. Further, the house has been improved and its size increased from 616 square feet to an area of 785½ square feet. This was accomplished by scientific analysis of methods and materials which reduced waste; by volume production which permitted lower profits per house, and by mass buying of materials. In other words, Lucky Homes have successfully applied the cost-reducing techniques of tract building to the erection of homes on individual lots.

The firm is a unique organization of specialists, who handle the sales and arrange for the financing of the houses. The homes are constructed by general contractors associated with the company who are trained in the company's methods and carefully supervised. This plan of operation provides great flexibility and enables

Each of the basic designs has one variation—the garage can be placed either at the front or at the side. Lucky Homes are heated by centrally located dual panel-ray gas heater delivering 40,000 B.T.U.

the firm to expand its volume without greatly increasing overhead, by simply adding more contractors to the staff.

Lucky Homes was founded four years ago by Robert W. Sharp, president, and Paul A. Ricatto, vice-president. Their dominant idea was to bring the advantages of mass production to the buyers who own their own lots and want homes built on their lots. Sharp designed the first house and has improved it yearly, culminating with the 1952 model which provides a lanai, almost unheard of in this price class. The design is all important — it has to qualify for top loans — it has to make possible fast and economical erection — it has to please the buyers. The 2-bedroom home is still responsible for the bulk of the business although several months ago a 3-bedroom house of 984 square feet was added to the line, priced at $4,995 when sold with attached garage including laundry facilities at $495.

Standardization is of course one of the big reasons behind the low price. A limited number of variations are permitted but absolutely no changes are accepted other than those on the printed change list which is in the hands of all sales personnel.

The group of licensed builders who are affiliated with the company are trained, now, by James M. Barr, manager of Lucky Homes' construction division. They are assured of continuous work. They know their costs exactly because no changes in the basic plans are permitted.

No margin is allowed for waste or carelessness, and it is only by performing each operation at the cost established by the company that the contractor can make money on a Lucky Homes job.

Take the color in the plaster, for instance. Only one color is allowed, so that the plasterer can go through a job without having to change his mixture, scrape out the mixing box and so waste small amounts of plaster. On concrete work, the Lucky Homes men work with a contractor until he is able to pour exactly enough for the job, with not a yard left over. They know exactly what the house will take, the contractor knows they know and sees the point in achieving top efficiency. This same technique of efficiency education of contractors and subcontractors occurs all along the Lucky Homes line.

Mass buying of materials is, of course, another cost-saving device used by this company. For instance, Lucky Homes' front doors, which presently are 3-light birch slab doors ordinarily too expensive for houses at this price level, were ordered in a lot of 2,000. Also, the two Lucky Homes designs are carefully worked out to standard lengths and widths of materials. Very little of anything is wasted, and there are time-saving factors connected with every stage of the construction. A Lucky Homes price includes erection of the house on level lots on an average of 60 days.

Sharp and Riccato have attacked the other two phases of the building business—selling and financing—with as sharp an eye for streamlining as they have had for the construction phase. The manager of the finance division, E. M. Merbitz, plays a central part in the business because many buyers at this price level have little or no cash and it is imperative to get the best possible loans. The company has built up its reputation with loaning agencies by close adherence to the following policy:

(1) Use only of contractors who have been thoroughly investigated as to honesty and ability; (2) avoiding

All Lucky Homes have a 4-inch termite-proof, damp-proof concrete floor finished with asphalt tile. This shows a slab under construction, with prefab plumbing tree set in

liens and lawsuits by handling trouble promptly whenever it arises; (3) stating facts fully and without misrepresentation; (4) screening every application carefully before submitting it to the loaning agency, thus saving the agency's time on deals where no loan could be made; (5) full and correct data on addresses of buyers and references, location of lots, plot plans and legal descriptions.

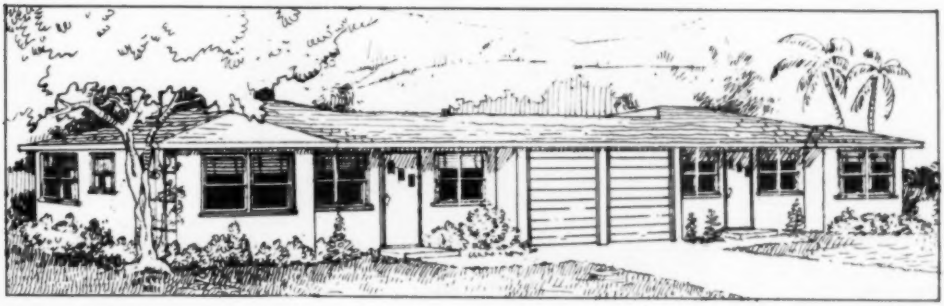
At the beginning of Lucky Homes' career, sales pretty much took care of themselves. Small ads in newspapers, a model home maintained in Pasadena, and signs erected on every house under construction resulted in a steady flow of prospects. Sales volume reached 70 houses a month. By the middle of 1950, a more ambitious sales program was begun, with well-organized sales staffs set up in several districts under district sales managers. Model homes were opened in El Monte and Pomona, and many other areas. In April of this year sales reached 110 houses for the month.

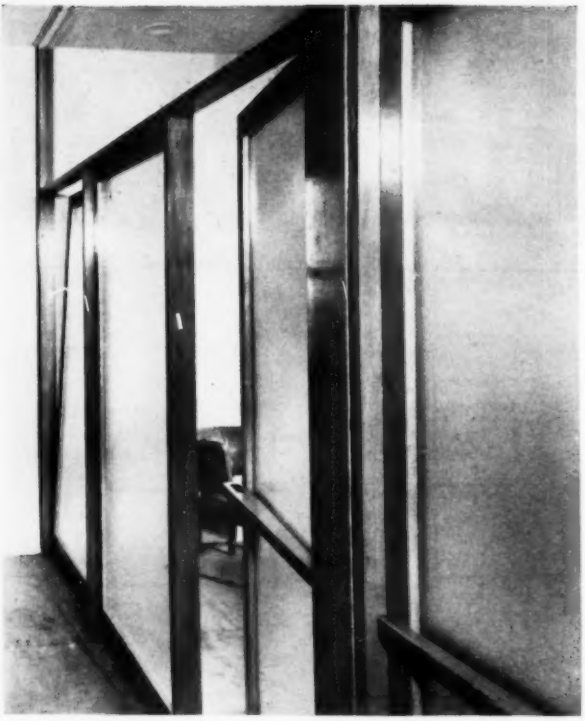
When a buyer signs a sales agreement with Lucky Homes he makes a deposit of $25. If the loan commitment doesn't come through, this fee is returned to the applicant. If he changes his mind about buying, the deposit is still returned, less any cost the company may have incurred for plans, legal papers, or other details connected with the transaction.

Lucky Homes are also sold for income property, two or more on a lot, and can be joined together as duplexes with garages in the middle

BRAND NAME PRODUCTS

American Standard plumbing fixtures	Mission water heater
Hudee sink frames	Old Colony paints
Kentile asphalt tile	Pioneer building paper
Kwikset locks	Richkraft building paper
Marlite for tub wall in bathroom	U. S. Gypsum lath



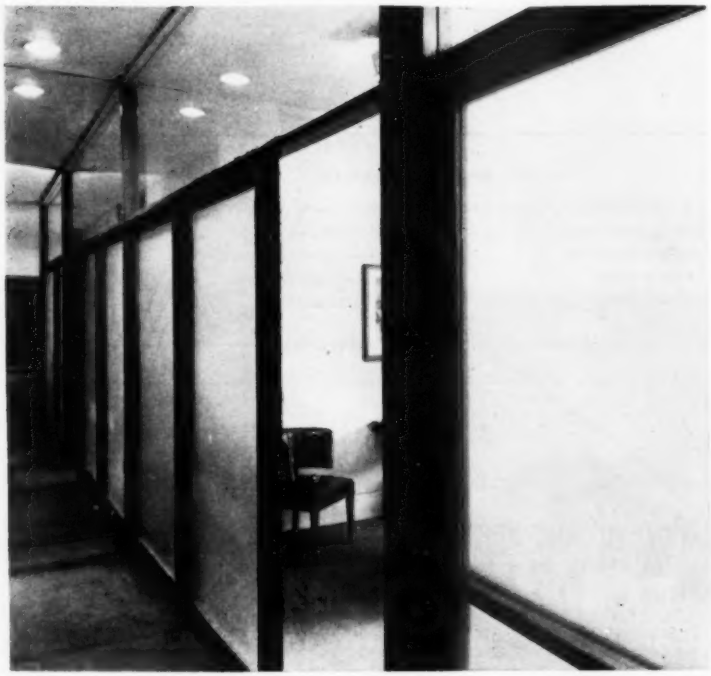


IDEA
of the Month

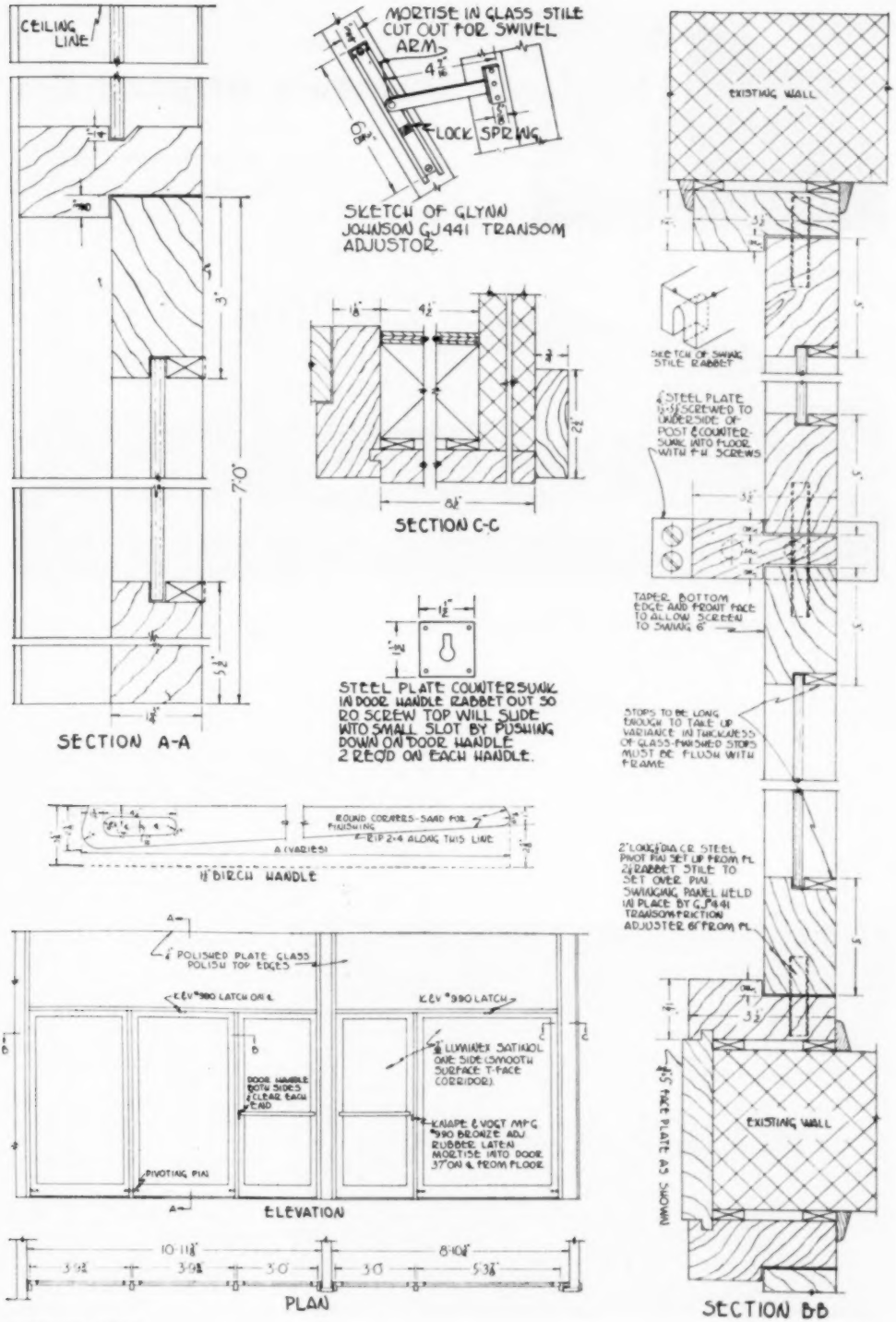
Office Partitions That Tilt to Provide Ventilation

IN REMODELING its offices in the Nicholas Building in Toledo, the Libbey-Owens-Ford Glass Company worked out this solution to the problem of ventilation and light for inside work areas adjacent to private offices: a clever combination of plate glass clerestory (for light) and 7-foot wall panels in opaque glass (for ventilation).

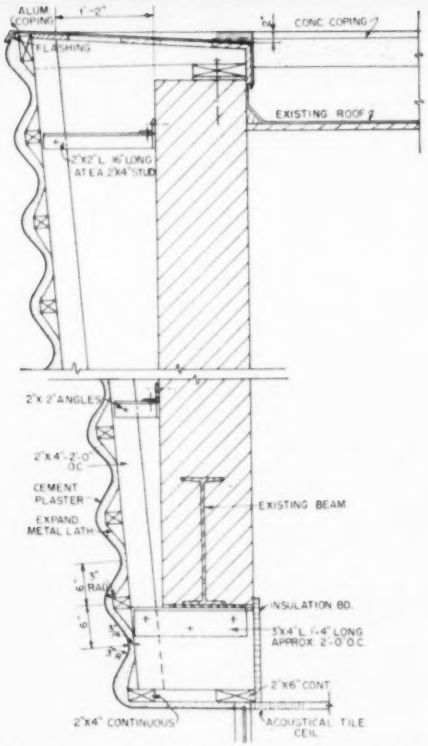
Framed in walnut, these wall panels have a swivel arm, and can be opened to a tilted position, allowing circulation of air from private office into inside space beyond it.



Mirror covers wall at end of corridor down row of private offices, heightening sense of space for an interior of limited area. Glass in wall panels has a smooth surface on the corridor side


CEILING LINE
7'-0"
SECTION A-A
MORTISE IN GLASS STILE CUT OUT FOR SWIVEL ARM
LOCK SPRING
SKETCH OF GLYNN JOHNSON GJ441 TRANSOM ADJUSTOR
SECTION C-C
STEEL PLATE COUNTERSUNK IN DOOR HANDLE RABBET OUT SO RO SCREW TOP WILL SLIDE INTO SMALL SLOT BY PUSHING DOWN ON DOOR HANDLE 2 REQ'D ON EACH HANDLE.
ROUND CORNERS-SAND FOR FINISHING
RIP 2-4 ALONG THIS LINE
A (VARIES)
1" BIRCH HANDLE
1/4" POLISHED PLATE GLASS POLISH TOP EDGES
KEV #990 LATCH ON ℄
KEV #990 LATCH
1/4" LUMINEX SATIN OL ONE SIDE (SMOOTH SURFACE T-FACE CORRIDOR)
DOOR HANDLE BOTH SIDES & CLEAR EACH END
KNAPE & VOGT MFG #990 BRONZE ADJ RUBBER LATCH MORTISE INTO DOOR 37" ON ℄ FROM FLOOR
PIVOTING PIN
ELEVATION
PLAN
EXISTING WALL
SKETCH OF SWING STILE RABBET
1/4" STEEL PLATE 12"x5" SCREWED TO UNDERSIDE OF POST & COUNTERSUNK INTO FLOOR WITH F.H. SCREWS
TAPER BOTTOM EDGE AND FRONT FACE TO ALLOW SCREEN TO SWING 6"
STOPS TO BE LONG ENOUGH TO TAKE UP VARIANCE IN THICKNESS OF GLASS-FINISHED STOPS MUST BE FLUSH WITH FRAME
2" LONG DIA CR STEEL PIVOT PIN SET UP FROM FL 2" RABBET STILE TO SET OVER PIN SWINGING PANEL HELD IN PLACE BY G.J. #441 TRANSOM FRICTION ADJUSTER 6" FROM FL
1/4" FACE PLATE AS SHOWN
EXISTING WALL
SECTION B-B

For Auto Display, Use



Unusual fascia in cement plaster applied over template to form deep corrugations, transforms front of building

STARTING with the shell of an outmoded building located next to a vacant corner lot, architect Karl B. Hoke and builder Harold V. Sturdevant produced this striking building for the Pemberton-Cadillac company of Toledo, Ohio.

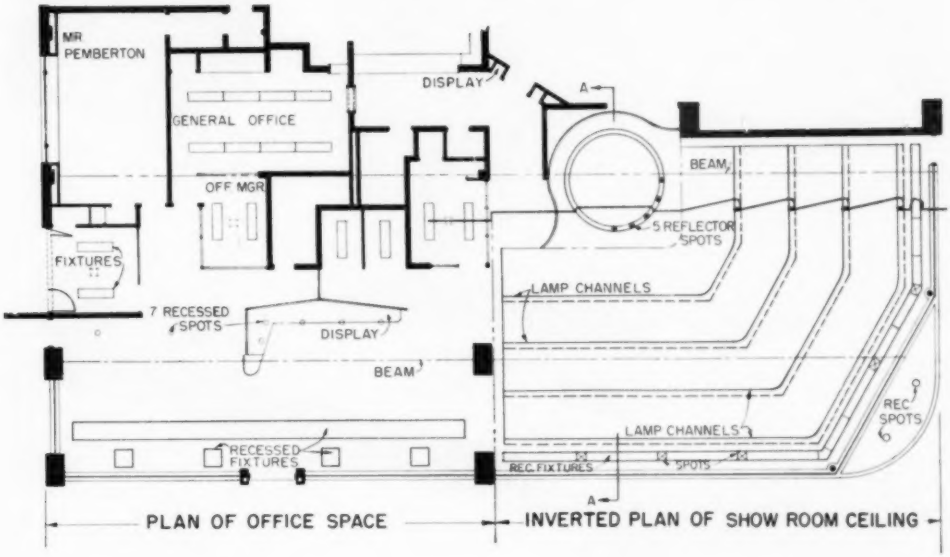
Facade of the old building was completely transformed by floor-to-ceiling glass wall for the first floor, structural piers being covered with mahogany-colored Vitrolite. The second-story front of the old building was covered with an unusual corrugated fascia, in off-white plaster. Against this background is mounted a translucent plastic sign in maroon, with the Cadillac coat-of-arms enameled in color. This sign is lighted from behind.

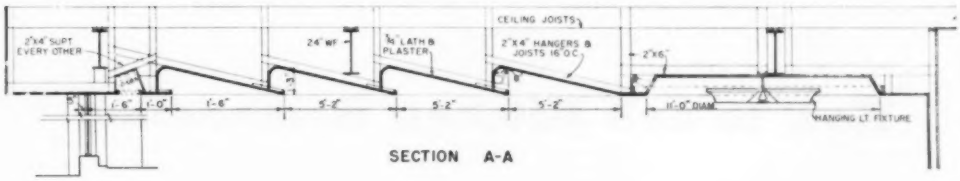
Aluminum trim carries the corrugation motif over into the new one-story display room and service garage built on the vacant lot. The projecting canopy is covered with this material. The main corner window is angled to give a maximum view of the showroom interior. Planting heightens the effect of an all-open front.

In the large areas of glass, the sash-holding members are hidden in the sill and ceiling so that there is a minimum of structural members visible.

Focus for the display room inside is the floor-to-ceiling curtain on a serpentine track. This forms not only a lounge corner for the room but also conceals the large doors through which cars are brought onto the floor. It also gives backdrop color changes and atmosphere through the use of multi-colored ceiling lights designed for stage effects. The whole plan of concealed lighting for this room is outstanding, and was worked out by H. E. Carney of the Toledo Edison Company.

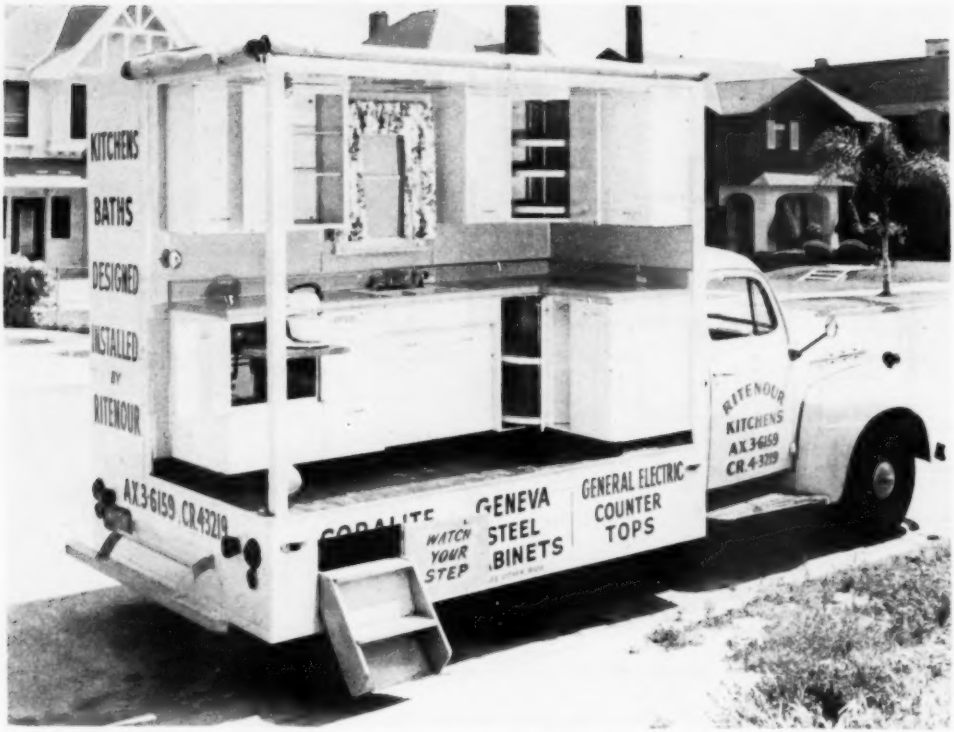
an All-Open Front and Unusual Lighting





Photos courtesy Libbey-Owens-Ford Glass Co.

Lighting plan for the building gives stage-setting atmosphere. Section A-A shows construction of concealed lighting troughs and circular spotlight



"Kitchen on wheels" provides remodeling specialist with mobile selling display

How to Sell Kitchen Remodeling

Ritenour bought the cab and chassis and built most of the display himself. Total cost was almost $6,500. The display is lighted for night showing. A heavy awning gives protection in inclement weather

Ritenour Kitchens, of Los Angeles, grew out of a general building business. The average contract runs from $2,000 to $4,000, and the market is unlimited

MACK RITENOUR of Los Angeles used to do general contracting. But a few years ago, after installing several kitchen jobs, he found this type of work so fascinating that he decided to make a study of all angles of it and become a specialist. Today he does nothing but modernizing of kitchens and bathrooms.

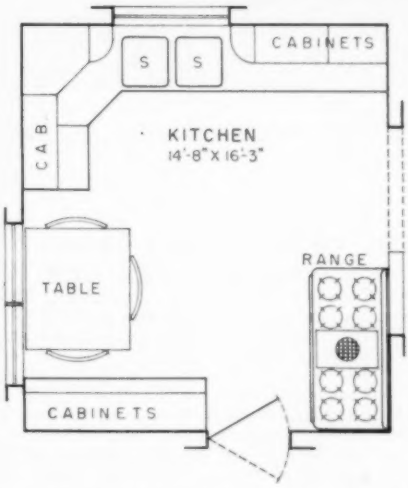
Securing kitchen remodeling jobs demands a carefully worked out sales technique, because such a job represents a sizable sum and Mr. and Mrs. Prospect have to be well sold on the fact that the result is going to be worth the expenditure.

One of the ways in which Ritenour does this is to bring a kitchen on wheels to his prospect's door. One side of this truck displays an almost complete kitchen; the other shows the baked enamel wallboard used for ceiling and wall work. Ritenour has fitted up two such trucks.

The truck display is backed up by a portfolio of before-and-after photographs of kitchens of all kinds, and a complete file of manufacturers' literature on appliances, cabinets, linoleum wall and counter materials. Ritenour can also point to the fact that he is the representative for installing cabinets and appliances for two large department stores. Finally, he is prepared to take the prospect to see other kitchens which he has put in—in which case the selling is usually done by the housewife, who likes to show off her new kitchen.

Classified ad listings in phone books are important, and Ritenour carries listings under such headings as Kitchen Equipment, Alteration Contractors, Bathroom Fixtures. He also employs a saleswoman who makes house-to-house calls in appropriate neighborhoods. During a recent 60-day period she secured leads which resulted in six complete kitchen remodeling jobs.

A period kitchen installed at a cost of about $3,200. The "before" view shows the kitchen after the old cabinets were removed. Next step was to remove most of the remaining plaster. Knotty pine was used in paneling and cabinets



A Phone-Answering Service Is a Must

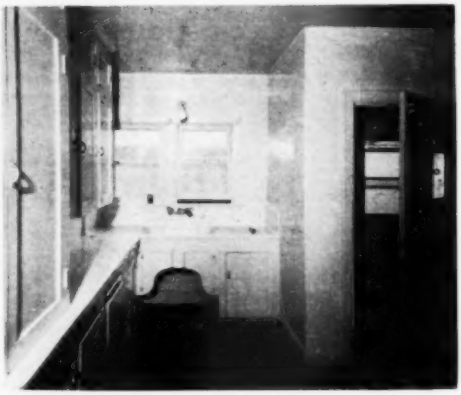
Although Ritenour operates from his home, he does not make the mistake that many contractors do—he has a telephone-answering service. People phoning him get an answer whether there is anyone at home at the time or not. He also maintains a telephone-answering service in another important market, from which he gets considerable business.

Handling the Prospects

When calling on customers or prospects, Ritenour not only finds out what they have specifically in mind, but looks around to see what else may be needed. Many jobs are expanded in size by suggestions for doing other work while the kitchen is torn up. For example, Ritenour finds that almost every customer will order a garbage disposal unit and about half want dishwashers. Many will go ahead and have the bathroom modernized, too, if this suggestion is made at the right moment. About half of Ritenour's customers pay all cash and half use FHA terms.

Because of the size of the contract and the amount of money involved, there is quite a tendency in prospects to want to procrastinate. When prospects try to secure other bids, they are usually just confused, because no

The service porch was eliminated in order to make a large room. The hot water heater was put into a closet. This job used Geneva cabinets, G-E Monotop, Dishmaster, Armstrong spatter linoleum, Sherwin-Williams washable wallpaper, Coralite on two walls and ceiling, Bendix washer. Cost was about $3,200



two contractors bid on exactly the same materials or the same amount of work. Realizing that all this is just an indication that the prospect hasn't been thoroughly sold in the first place, Ritenour goes to each call prepared to submit sufficient data to enable him to close the sale then and there, if at all possible. This on-the-spot closing is an important element in his selling technique.

Working Up the Job

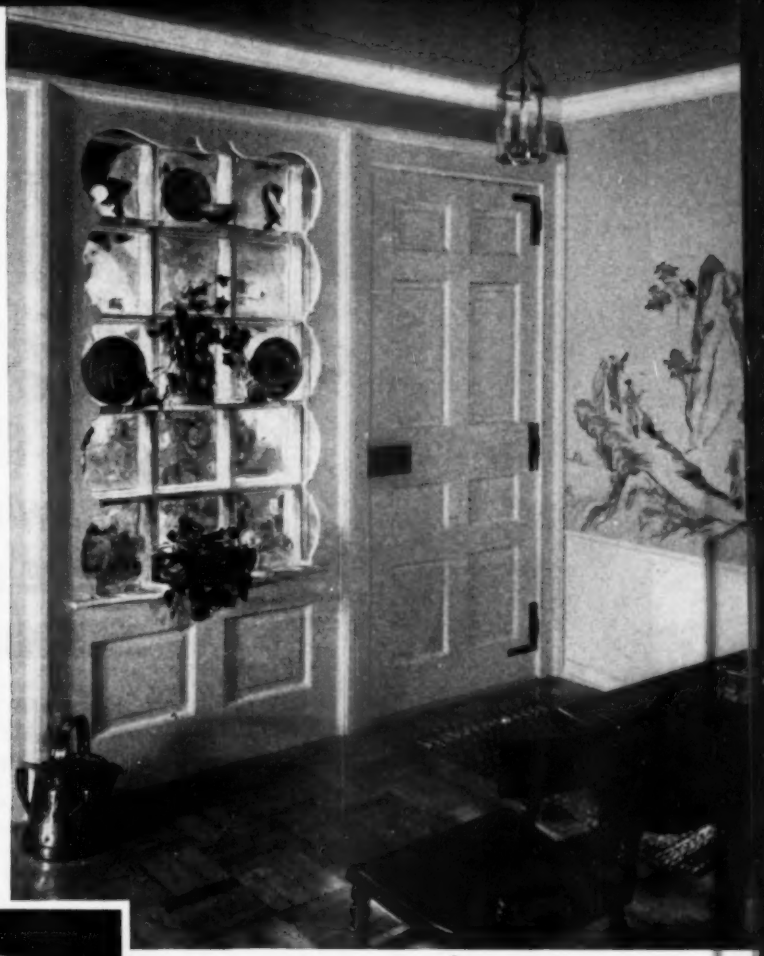
Ritenour always makes a sketch of the job, sometimes also a perspective, and gets written approval of the sketch as well as of the contract.

On kitchen jobs, all woodwork, trim, cabinets, old tile, or loose plaster are removed. Then the rough plumbing and wiring are put in, and an inspection secured. In most old homes it is necessary to add an electrical service because the old wiring isn't adequate to take the new appliances. A soffit is usually installed to lower the cabinets, and dry wall material is used to repair gaps where plaster has come out. (Wallboard for finishing cannot be applied over wet plaster.) Then the new cabinets go in, then counter tops, then the baked enamel wallboard. The plumber and electrician come back to finish up, and finally the floor and the painting are done.

All this requires precision workmanship. It takes six weeks to train a man to apply plastic-finished wallboard properly. Application of the ⅛-inch aluminum mouldings is tricky. In applying Coralite, which Ritenour uses in his jobs, the edges of the panels are scraped down a little so that they will fit into the flanges of the mouldings, leaving the back of the board in close contact with the walls; then the entire surface is coated with mastic, applied with combs made by notching out small pieces of wood.

Ritenour believes that the market for this kind of work is tremendous. All old homes, he says, sooner or later, will have to have kitchens and bathrooms remodeled if they are to be livable.

Here is the doorway opposite but with a panel of regular single glaze glass. With a random clear glass block panel, prying eyes cannot see inside.



◀ By night, the entranceway glows with a light that radiates welcome to friends. By day, inside rooms are flooded with natural daylight.

▲ This random clear panel retains all of the doorway's colonial charm. The subtle variation in the block face is reminiscent of old handmade glass.

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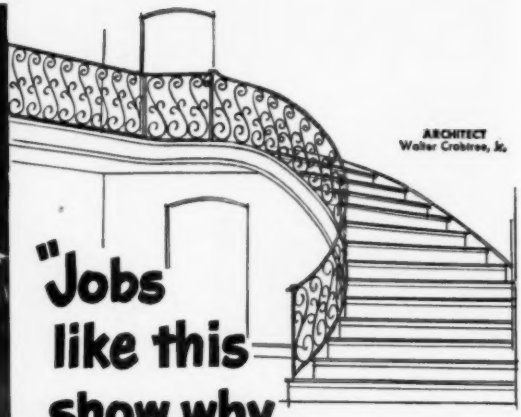

ARCHITECT
Walter Crabtree, Jr.

"Jobs like this show why we're sold on STANLEY ROUTERS"

H. B. SANSON, INC., West Hartford, Conn. Cabinet Makers, step up efficiency with these versatile tools.

Mr. H. B. Sanson says, "Hand cutting the stringers for this circular stairway could have been a slow and tricky task. But with a Stanley Router and a handmade template we made precision cuts quickly and easily—at a big saving of time and 'muscle'."

"Wherever possible we use Stanley Routers . . . and the more we use them the more we save. They're important members of our building crew."

And it's for these same reasons—time and money saving—that more and more profit-minded contractors use Stanley Routers for all kinds of smooth, finished cuts. Use them on "specials" like this circular stairway and to put speed and precision into everyday jobs—mortising for hinges, edging stair treads, doors, panels, dovetailing, shaping, beading and fluting, and many other types of work limited only by the user's ingenuity.

See these cost-cutting Stanley Routers in action at your dealer's or write for descriptive literature to: Stanley Electric Tools, 400 Myrtle Street, New Britain, Connecticut.

There's a complete line of portable Stanley Routers from ½ to 3 h.p.—each designed and powered to do the job *right*.

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R8A	⅓ h.p., 20,000 r.p.m.
RS80	½ h.p., 20,000 r.p.m.
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R33	3 h.p., 18,000 r.p.m.

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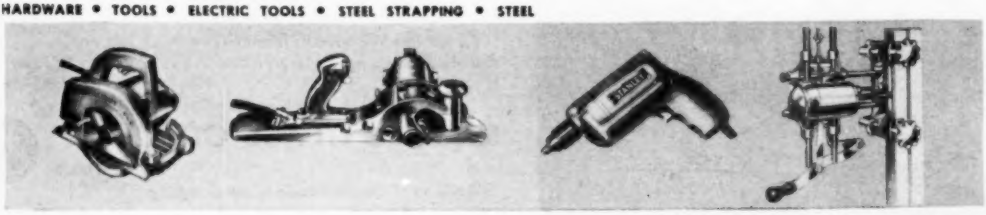
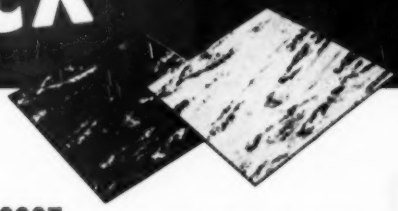


Nation-wide survey answers a question important to YOU

Question: Which vinyl-asbestos flooring Wins the greatest User Preference?

ARISTOFLEX



Here's why

Can be installed on, above, or below grade This is possible because Aristoflex is vinyl-asbestos from top to bottom with no felt backing. It is tough, durable, flexible. So, you can specify Aristoflex as a multi-purpose flooring, ideal for practically all installations.

LOW COST Standard-gauge Aristoflex is comparable in price to greaseproof asphalt tile, yet it is far superior. Thus, you can give your clients the many advantages of modern vinyl-asbestos flooring at a price that meets the requirements of even low-budget projects. Aristoflex is also available in the 1/8" heavy-duty thickness.

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Keeps installation costs at a minimum Aristoflex requires no special cements, ordinary asphalt tile adhesives do the job. And standard-gauge Aristoflex cuts clean with a torch. It lays in tightly, immediately, because of square corners, clean edges and flexibility. Installation is fast and easy, cutting labor costs.

Greaseproof Greases, bleaches and turpentine cannot deteriorate Aristoflex. It is really greaseproof. And Aristoflex cleans easily – never needs waxing. It's smooth, non-porous surface sheds dirt, wipes clean with a damp mop.

Resists acids, alkalis, petroleum, fire A high percentage of those questioned reported this resistance a prime factor in the wide acceptance of Aristoflex among builders and home owners alike. More and more users are demanding this and the other inherent characteristics of vinyl-asbestos in the floors they buy.

Unchanging Quality Aristoflex is made from carefully selected and tested raw materials. It is manufactured under a rigorous method of control that assures a uniform high standard of quality. You can always specify Aristoflex with full confidence that it will meet your most exacting requirements.

Resilient -- Good Sound Absorption Because Aristoflex is resilient underfoot it is comfortable and quiet to walk on. These properties make Aristoflex especially desirable for institutions and office buildings.

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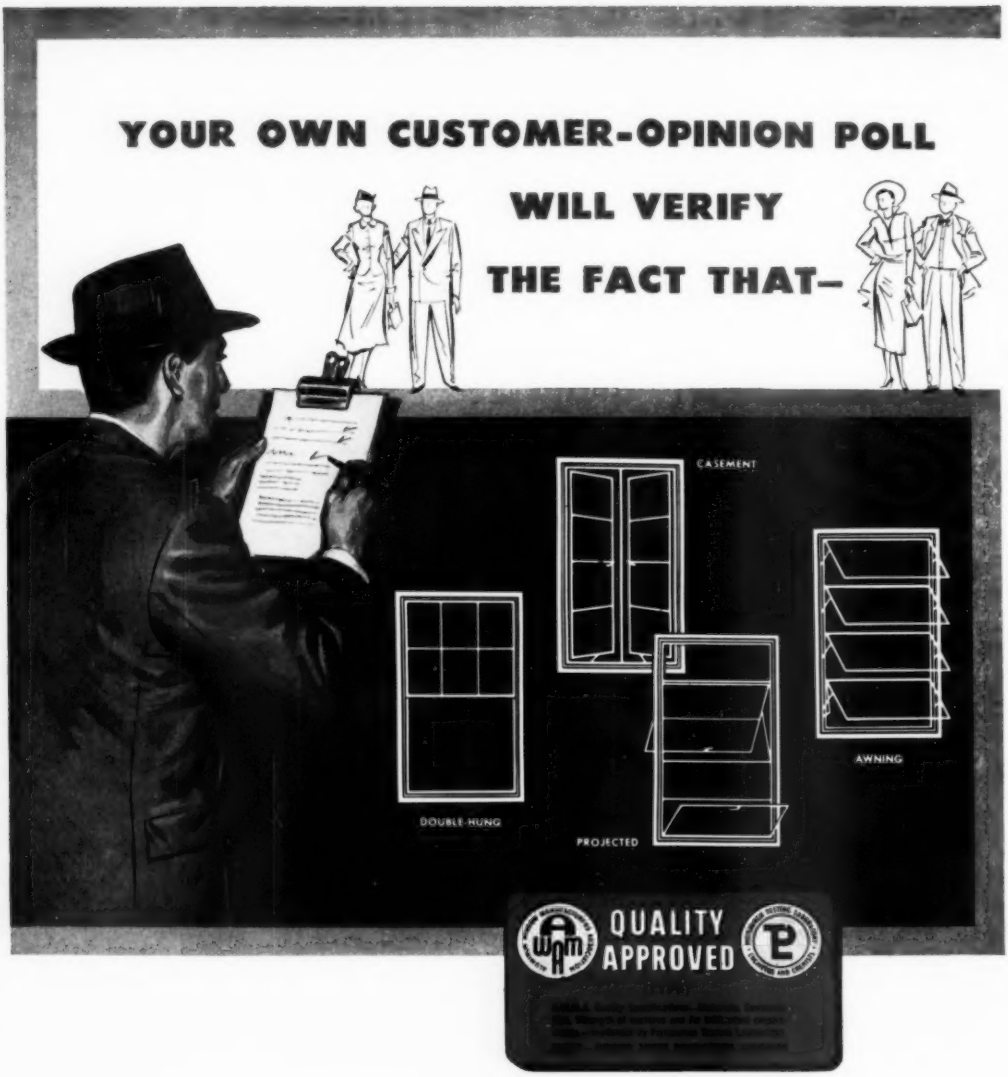


WHAT YOU SHOULD KNOW ABOUT THE "QUALITY-APPROVED" SEAL

The "Quality-Approved" Seal protects you against inferior windows. It is your assurance of aluminum windows that have been tested and approved by an independent laboratory – for strength of sections, quality of materials, sound construction and low air infiltration.

The "Quality-Approved" Seal is given to no one. The right to use and display the Seal must be *earned* on the basis of rigid performance tests. Any manufacturer (whether a member of the Association or not) whose windows pass these tests can qualify to use the Seal. That's why it's important that you insist upon windows carrying the "Quality-Approved" Seal.

TODAY'S HOME-BUYERS *WANT*

Quality Approved

ALUMINUM WINDOWS

Survey after survey, poll after poll, show that the majority of people planning to build or buy want a house that's up-to-date in every respect—a house that's easy and inexpensive to maintain—a house that offers all the money-saving advantages of Aluminum Windows.

Your own customer-opinion poll will verify this demand. Just ask the next ten home-buying prospects, "What kind of windows do you want in your new house?" You may be surprised at the results. While styles and types will vary, the great majority will agree on Aluminum Windows. And those in the know will specify "Quality-Approved" Aluminum Windows.

The reasons are simple—and mighty sound. The "Quality-Approved" Seal is the home-buyer's assurance of finest quality windows—windows that never need painting or costly repairs and replacement . . . windows that cannot rust or rot . . . windows that always operate easily, effortlessly, efficiently . . . windows that will remain beautiful for the life of the house.

Cash in on this growing demand for Aluminum Windows on the part of home-buyers. Install "Quality-Approved" Aluminum Windows in the next group of houses you build and see for yourself how they help stimulate sales.

"Quality-Approved" Aluminum Windows are available for immediate delivery through many manufacturers—in sizes and styles (double-hung, casement, projected and awning) that fit any building plans.

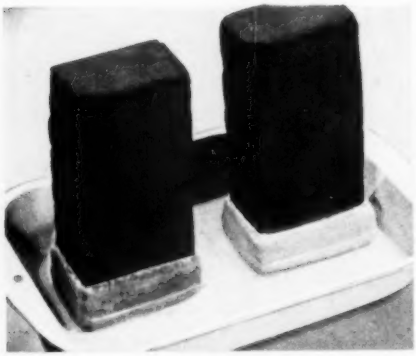
For additional information about "Quality-Approved" Aluminum Windows, write any Approved Manufacturer—consult Sweet's Builders File (Section 4c/ALU) or write us direct at Dept. AB-10.

Aluminum Window Manufacturers Association

74 TRINITY PLACE, NEW YORK 6, N. Y.

BRIXMENT MORTAR

Helps Prevent Efflorescence



To test two mortars for resistance to efflorescence, "cap" two brick heavily with the mortars—let harden, and keep both brick for a few weeks in a shallow pan of water, as shown. Try this with Brixment mortar!

HERE'S WHAT CAUSES EFFLORESCENCE—AND WHY BRIXMENT MORTAR HELPS CONTROL IT

Efflorescence is an outcropping of minute white crystals on brickwork. When these crystals occur on colored mortar joints, the condition is sometimes mistaken for *fading*.

Efflorescence is caused by the presence of soluble salts in masonry materials. When reached by water, these salts dissolve, and are drawn by evaporation to the surface of the wall. Brixment itself *does not cause efflorescence* because it is practically free from soluble salts. Even when such salts are present in the sand or brick, the air-entraining and waterproofing agent in Brixment usually *prevents them from coming to the surface.*

Bricklayers who have used Brixment mortar for years say they have far less efflorescence with Brixment than with any other mortar.

LOUISVILLE CEMENT COMPANY, Incorporated, LOUISVILLE 2, KY.

Incredible!

...IS THE WORD FOR THIS Tracy ACHIEVEMENT!

Beautiful Stainless Steel Sink at the price of porcelain

V-66-UMS a magnificent 66-inch sink with gleaming, lustrous stainless steel top, all-welded steel cabinet, finished in Dulux. Also available in 54" as at left.

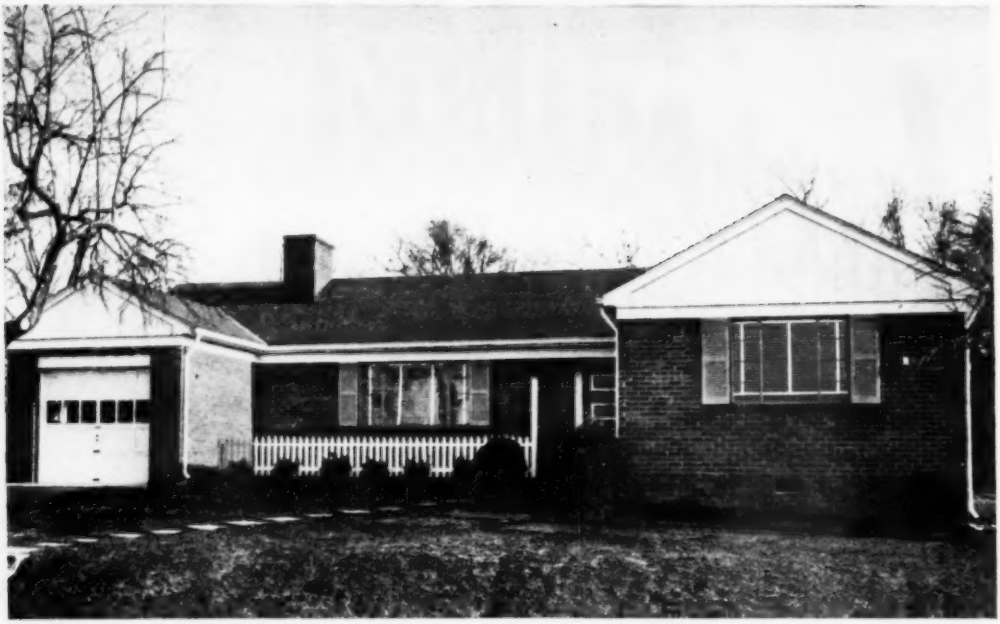
The most exciting stimulator of kitchen interest—builder of store traffic—developer of live kitchen prospects — generator of sales! TRACY dealers are busting out all over with the two new VALUE-LINE Stainless Steel Sinks!—offered at prices that are all but unbelievable. A LIMITED-TIME promotion to make the kitchen business SIZZLE! Here is another evidence that TRACY is "the quality-volume line!"

Write, wire or phone for the name of your TRACY Distributor.

THE QUALITY-VOLUME LINE

Tracy KITCHENS

EDGEWATER STEEL CO. · P.O. BOX 1137 · PITTSBURGH 33, PA.



(Above) Electronic Moduflow home built by Berkey Properties, Inc., at Arlington, Virginia
(Below) Builder James H. Berkey discusses Electronic Weathercaster with Honeywell representative Jack Long.

"The Electronic Weathercaster is an exciting feature of my new homes!"

says James H. Berkey, leading Arlington, Virginia, builder

"Several years ago we looked hard for a control system that would give home owners a superior kind of comfort.

"Honeywell's new Electronic Moduflow seemed like the best bet to us.

"So we began to install it. And we sure got the results we were looking for—temperatures that stay comfortable, no matter what the weather does. Plus a great many prospects because we advertised it as something special.

"And we got a lot more than that.

"In the Electronic Weathercaster—the outdoor thermostat—we found an exciting feature that has a wealth of appeal.

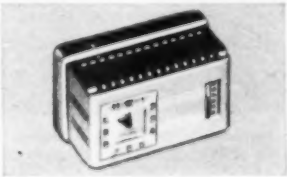
"And this is a natural lead-in to the big reason why Electronic Moduflow provides better comfort—that as the mercury drops *outdoors* the system raises *indoor* temperatures to compensate for increased heat loss. This fact is a big help in selling homes."

HONEYWELL

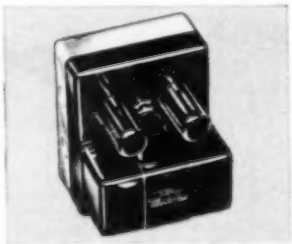
Another Plus-Profit Idea from Honeywell

Numbered positions on floor plan indicate location of Electronic Moduflow components illustrated at right.

1 **Electronic Weathercaster** detects temperature shifts *outside* the house.



2 **Electronic Chronotherm** provides automatic night set-back, automatic morning pick-up.



3 **Electronic Relay Amplifier** "interprets" signals from thermostats.

Magic of Electronic Moduflow heating control makes your homes easy to sell

In addition to being comfort conscious, every prospect is intrigued when you mention that magic word "electronics."

So when you show a house that's equipped with Honeywell *Electronic Moduflow,* if your prospect is at all interested, you're closer to a sale.

And it's good to tell your prospect the reasons why Electronic Moduflow will mean he'll be more comfortable.

Simply explain that because the controls *are* electronic, they're 28 times more sensitive. That in the new Honeywell Moduflow system, outdoor and indoor thermostats work together to give comfort that's close to ideal – by raising *indoor* temperature to compensate for heat loss when *outdoor* temperature drops.

Use the magic of *Electronic Moduflow* to make your homes easy to sell.

See your local Honeywell office – or send for more information

MINNEAPOLIS
Honeywell

First in Controls

MINNEAPOLIS-HONEYWELL REGULATOR CO.
Dept. AB-10-146, Fourth Avenue South,
Minneapolis 8, Minnesota.

Gentlemen: Please send me more facts on your new Electronic Moduflow system for homes.

Name.....

Firm Name.....

Address.....

City..... *Zone*... *State*.....

A solid layer of grout covers the "inside" surface of the panel. Rods used primarily for handling purposes can be seen protruding from the horizontal and vertical sides of the panels. Brick is Chicago treated common brick in basketweave pattern

Precast Masonry Units Speed Economical Home Construction

OF INTEREST to builders of small structures who have been plagued by ever increasing construction costs is a house built recently in Northfield, Illinois. Designed by the Chicago architectural firm of Holsman, Holsman, Klekamp and Taylor, the house uses modern building methods and principles of cost-saving design which have led to unique reductions in construction costs.

In the $16,500 class, the house has an area of approximately 1,926 square feet including second floor sun deck (270 square feet), and carport with an additional area of about 210 square feet. The house and carport have a total of approximately 15,394 cubic feet. The average total cost per square foot is $7.72, while the cost per cubic foot is about $1.07.

In planning the house, the Holsman organization combined building techniques developed in conjunction with apartment house dwelling construction with time-tested methods of smaller building construction. Unique also was the use of a thoroughly modern precast brick panel, both inside and out.

Panel Heating and Floor Construction

The second floor involves apartment dwelling floor construction methods. Briefly, steel joist boxes are used to support 3-inch slabs of precast lightweight concrete. Reinforcing rods are used to help tie the slabs together; the panel heating tubing is laid and the slabs are grouted to create a rigid unit.

The panel heating tubing in the first floor is conventionally laid. However, a portion of the second floor tubing is laid in direct contact with the steel joists to get sufficient heat output for the extensive glass area of the house. An abnormally high heat output of 125 BTU/ft. of 3/8-inch copper tubing is achieved because the metal surface of the beam becomes a radiant surface, transmitting heat from the tube at a more

House in Northfield, Illinois, uses precast brick panels both for exterior walls and some of the interior partitions. Cost of the house averaged $7.72 a square foot

rapid rate than is possible if the tube were merely imbedded in concrete.

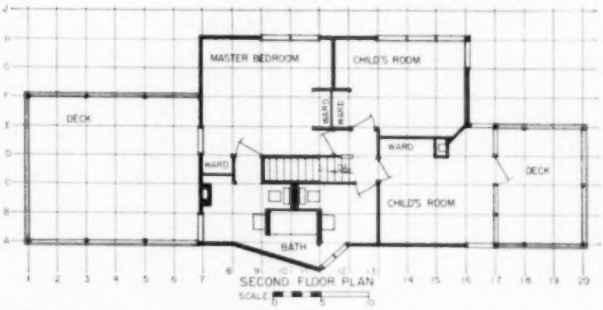
Tubing laid parallel and in contact with the joists is laid three feet o.c. The tubing laid normal to the joists is placed in the slab joints at approximately one-foot intervals or greater as is required for the heating load. A single thermostat controls heat floor. The system is fed by the oil-fired hot water furnace located in the utility room. Convectors are not used in this system.

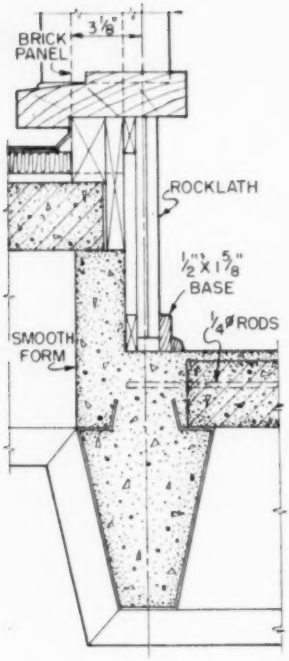
Partitions

The interior partitions are two-inch gypsum board, laminated, and are tied to the precast brick exterior walls by form clamps. No plaster is used in the house.

Precast Brick Panel Walls and Partitions

The exterior walls and some of the interior partitions are precast brick panels. The panels are fabricated away from the site under controlled conditions. Leakage trouble experienced with conventional masonry is thus done away with. The

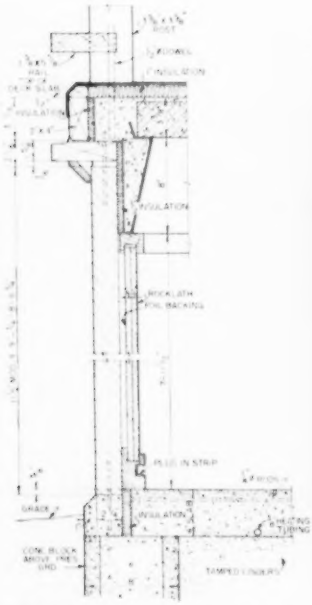




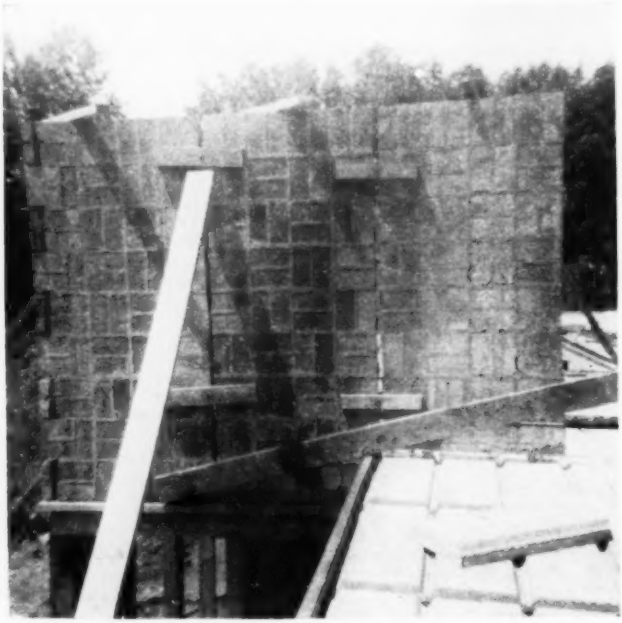
Section through window to roof deck

cost of the precast brick panels delivered to the job site is $0.51 per square foot and the cost of erecting and pointing the panel is $0.32 per square foot, for a total cost of $0.83 per square foot. This compares well with the cost per square foot of a conventional 8-inch brick wall of over $1.00.

Panels are brought to the site and



Wall section through one-story wing, wood rail above



Close-up of panels after they have been lifted into place and temporarily supported by beam and bar

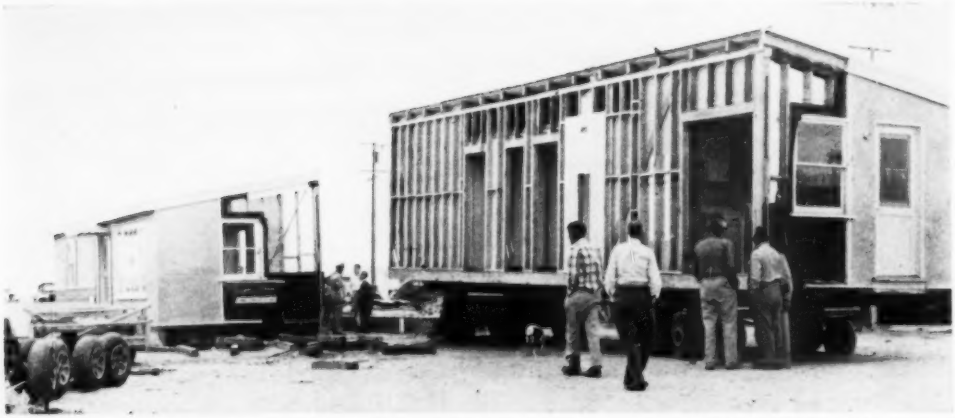
Facing of the fireplace and the stairwell are made of the brick panel. The grouted side of the panel is covered with gypsum board when used as a partition. Back side of the fireplace accommodates handy bookshelves. Ceiling beams are the steel joist boxes used to support floors of 3-inch slabs of precast lightweight concrete

are either tilted up into place or lifted into place by a small hand operated derrick mounted on wheels. They are anchored to sill and head plates by the reinforcing steel dowels that extend from the slab ends. The joints between the slab panels are caulked and grouted in the field, with mortar to match the joints of the panel.

The precast panels of the Northfield house are of Chicago treated common brick in a basketweave pattern. They are 2¼ inches thick and are used as the structural wall-bearing element. The furred space and the drywall interior add 1½ inches to this, making a total wall thickness of 3¾ inches.

Many of the interior partitions of the house are made of the precast brick panel, as is the stairwell and the facing of the fireplace in the living room. Where the panel is used as a partition, the brick surface faces into one room, while the grouted opposite side is covered with gypsum board. In the stairwell, the brick faces outward and the gypsum board faces the stairs. The fireplace surface consists of floor-to-ceiling brick panel, front and rear. The front faces the living room while the other surface constitutes the back of a series of bookshelves.

Unusual ceiling treatment in bedroom



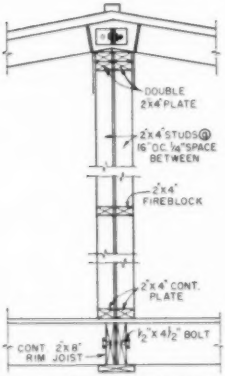
175 miles from the factory, these Mobilhome segmented houses are being set in place in Ridgecrest, Calif. It takes 16 man hours to do the job

Mobilhome Develops A Factory-Built House In Two Parts

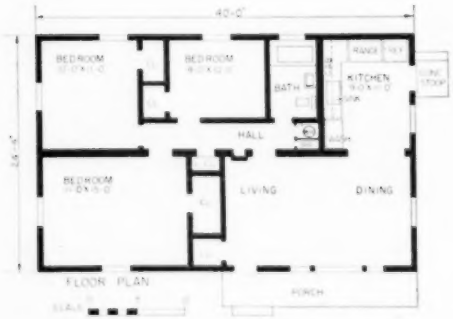
For several years the Mobilhome Corp. of America, of Bakersfield, Calif., has been producing houses by production line and moving them intact to the owner's lot. To simplify the hauling problem, the company has now developed a split house design which makes it possible to haul a house in two sections measuring only 14 feet each in width.

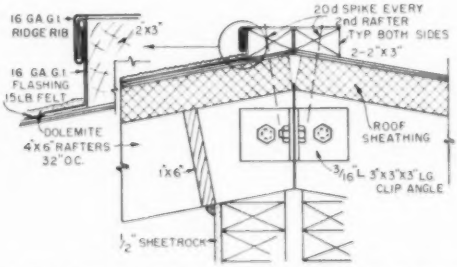
Mobilhome's segmented house is built with a double bearing wall down the center. The plumbing is contained within one section. The two sections are bolted together on the foundation. Prices vary with the distance the house travels. If it is set down within 10 miles of the plant, the price may be $5,595, $5,995, or $6,895, depending on size. Average cost for additional distance is $5 a mile. Prices are subject to discount of about $400 when the house is purchased in quantities of three or more.

Another recent innovation is the use of stucco as the exterior finishing material. The first two coats are put on while the house is on the production line and the final coat is applied at the site.



Section showing double bearing wall through center of house





Anchor detail. Two sections are bolted together in 12 places

A Strong Credit Bureau Helps the Building Business

In Detroit, a unique factor in the building industry is the Bureau of Credits, Inc. Watchdog of construction and real estate credit, this Bureau does a major service in keeping out the shady and unqualified operator. Everybody benefits

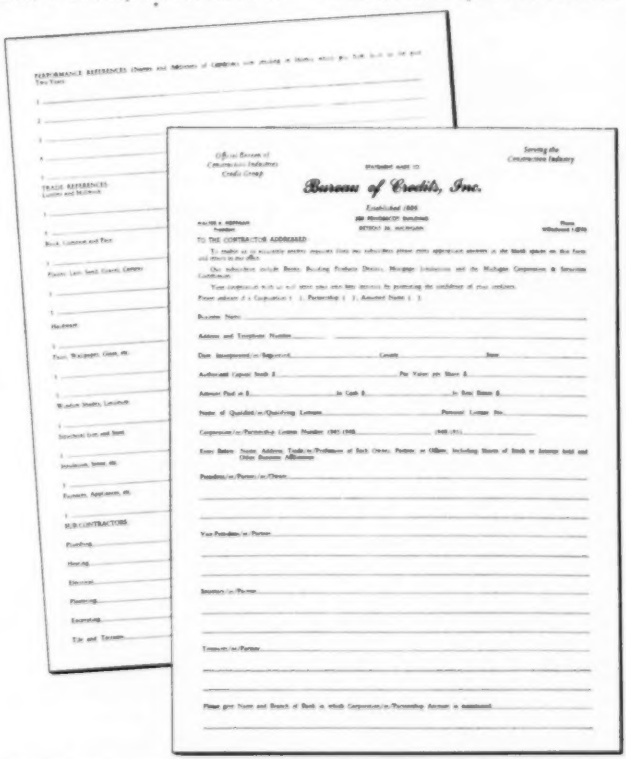
SPECIALIZING since 1932 in credit reports on builders, the Bureau of Credits is a privately-owned agency which has developed a unique place for itself in the confidence of mortgage loan and building supply houses, as well as of builders themselves. Quickest way to get an impression of the work of this unusual credit agency is to focus on a hypothetical builder who, we'll say, is breaking into the industry.

First of all, as an individual or corporate residential builder, he must obtain a license from the state. A credit clearance is part of this process. The builder calls the Bureau of Credits in the Penobscot Building, in the heart of the financial section of downtown Detroit. Chances are he will get hold of Frank S. Laurens, the Bureau's manager. Laurens gives the newcomer certain forms to fill out, including one which calls for full data on his performance record as a builder, as well as for a detailed financial statement on assets and liabilities. The Bureau also takes parallel steps to check on the builder's financial and business history, investigating points at which he has ever used credit, over a 3-county trading area.

Thus is begun a file of information which, kept up to date, will be used as a basic reference whenever the builder applies for credit either on materials or as mortgage loan, during his activity in the Detroit market. The Bureau does not charge a fee for the credit clearance that goes with a license application, but is glad to give this service gratis. It functions also in other gratis ways for the benefit of the industry as a whole, such as cooperating with the Builders Association of Metropolitan Detroit in furnishing information when needed, or in giving free advice to individual builders on the various regulations affecting credit standing.

With the license secured, the builder is ready to begin. Suppose he is planning to build a project of 100 houses, and has decided to apply to the Manufacturers National Bank in Detroit for a construction loan. This bank, along with some 500 other loaning agencies and building equipment and materials suppliers, is a subscribing member of the Bureau of Credits. A member pays an annual fee which covers a certain number of units, or case reports. An annual total of 100 units is minimum. A bank would use perhaps as many as 3,000 units a a year. An average would be about 500 units, based on reports to subscribers on both real estate and construction cases (for the Bureau investigates real estate as well as construction credit requests).

With the loan application in hand, the bank first of all calls the Bureau of Credits for a report on the builder.


PERFORMANCE REFERENCES (Names and Addresses of Contractors with whom you have done business within the past two years)

TRADE REFERENCES

SUB-CONTRACTORS

Official Bureau of Construction Industries Credit Group

Serving the Construction Industry

Bureau of Credits, Inc.

Established 1932

TO THE CONTRACTOR ADDRESSED:

Business Name

Address and Telephone Number

Date Incorporated or Registered

Authorized Capital Stock $

Amount Paid in $

Number of Qualified or Qualifying Licenses

Corporation or Partnership License Number

President or Partner or Owner

Vice President or Partner

Secretary or Partner

Treasurer or Partner

Please give Name and Branch of Bank in which Corporation or Partnership Account is maintained

The performance record of the builder is investigated thoroughly. Does he understand the business? The type of buying? Kinds of materials? From this form, and in non-referred ways, the Bureau of Credits tracks down the vital facts that help to determine credit risk desirability

LIABILITIES

Accounts Payable Trade Creditors	$	
Accounts Payable Sub-Contractors	$	
Notes Payable	$	
Cash Advances Trusteed	$	$
Accrued Payroll	$	$
CURRENT LIABILITIES		$
Contract Price of Uncompleted Homes		$
Real Estate Mortgages Payable		$
Land Contracts Payable		$
Options Payable		$
Deferred Commissions Payable		$
Insurance and Taxes Payable		$
Unearned Income		$
Other Liabilities		$
CAPITAL ACCOUNT		
(A) Proprietors Equity	$	
(B) Partnership Equities	$	
(C) Capital Stock Authorized	$	
Less Unissued	$	
Capital Stock Issued		$
(D) SURPLUS OR NET WORTH		
Earned	$	
Other		
TOTAL LIABILITIES AND NET WORTH		

NOTE Under Capital Account When Filling Out
(1) Individual Should Use (A)
(2) Partnership Should Use (B)
(3) Corporation Should Use (C)

The foregoing has been carefully read by the undersigned and is submit

undersigned hereby certifies it is a true and correct exhibit of our/my financial and may be treated by you as a continuing statement thereof until replaced by

Name

Date Signed 19 By

To keep his credit standing in good order at the Bureau of Credits, the builder must sign this financial statement and send it in three times a year

As a part of this process the builder must file a current financial statement with the Bureau, along with a statement detailing the proposed construction and recording the houses he already has under construction, if any. If the builder isn't willing to file a financial statement with the Bureau, the chances of his getting a loan from the bank are practically zero.

With a favorable credit report in hand, the bank approves the loan request, and sends a card to the Bureau stating that the loan is being made.

Next step in recording the credit history of a specific building operation takes place when the various suppliers with whom the builder is doing business send cards to the Bureau of Credits detailing their sales to the builder. The Bureau forwards these cards to the bank so that when the bank begins making advances on the construction loan, a check can be made against the builder's sworn statements on where the money is going.

Both the bank and the supply houses keep the Bureau informed as to how the builder pays his bills, if there are any liens filed, if the builder fails in any way with his commitments, etc. Owners' complaints are also registered with the Bureau. Thus the Bureau builds up a potent backlog of data on the mettle and performance of the builder, and charts his credit risk desirability.

Organization of the Bureau

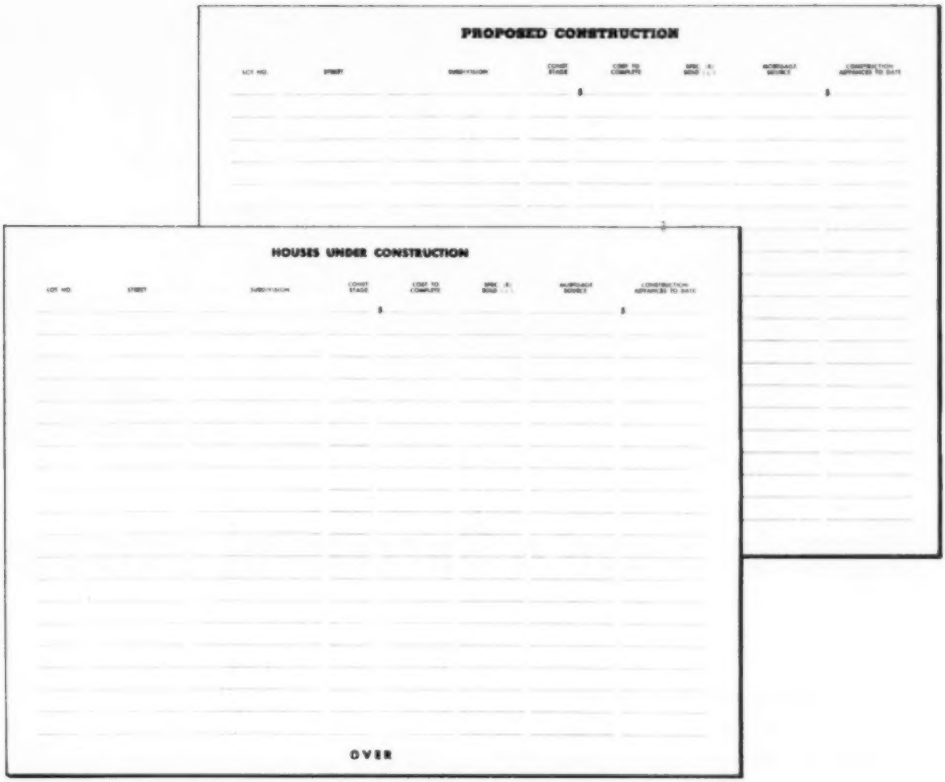
The Bureau of Credits is organized into two main departments: (1) Investigating and (2) Servicing. The Investigating Department has two sections, one given over to work on construction cases, and the other investigating applications for rentals, land contract, or mortgage purchases of any kind.

On the real estate side, the Bureau uses a staff of 10 persons. A staff of eight investigators work on construc-

RESIDENTIAL BUILDERS FINANCIAL STATEMENT

ASSETS

Cash on Hand and in Banks		$
Cash on Hand and in Banks (Trust Funds—Deposits from Purchasers)		$
Cash Value of U. S. War Bonds		$
Cash Surrender Value of Life Insurance		$
Accounts Receivable	$	
Notes Receivable	$	
Commissions Receivable	$	
Inventories at Cost (Construction Materials)	$	
Less Reserve for Bad Debts	$	$
CURRENT ASSETS		$
Construction in Progress (Speculative)	$	
Completed Buildings (For Sale or Rent)	$	$
Contracts Receivable (Purchasers Agreements)	$	
Work in Progress (Purchasers Agreements)	$	$
Land (Vacant)	$	
Real Estate Mortgages	$	
Land Contracts	$	$
Power Tools, Furniture, Equipment, Trucks, etc.	$	$
Less Reserve for Depreciation	$	$
Deferred Charges		$
Other Assets (Describe Fully)		$
TOTAL ASSETS		$



PROPOSED CONSTRUCTION

LOT NO.	STREET	SUBDIVISION	COMPLETE STAGE	COST TO COMPLETE	MORTGAGE BORROWED	CONSTRUCTION ADVANCED TO DATE
				$		$

HOUSES UNDER CONSTRUCTION

LOT NO.	STREET	SUBDIVISION	COMPLETE STAGE	COST TO COMPLETE	MORTGAGE BORROWED	CONSTRUCTION ADVANCED TO DATE
				$		$

OVER

This form, showing proposed and other construction, accompanies the builder's application for a construction loan as it is referred to the Bureau for a credit report

tion cases, ferreting out all details affecting a credit application. The investigation goes forward on the basis of three main categories: personal history of the applicant, his performance record, his financial and credit record.

Construction cases averaged about 75-80 a day in 1951, are up 10 per cent this year. On the real estate side, the Bureau handled about 175-180 cases a day in 1951, but this year there is a reduction in this category of about 40 per cent.

About 70 per cent of calls from subscribers come into the Bureau via telephone, and these calls are taken in by the Servicing Department, but the Bureau sends back every report to the subscriber by mail. Requests from supply house subscribers for credit risk information are answered from the files, provided the data therein is not more than four months old, in which case the subscriber is notified that the case is being placed for reinvestigation. Files are brought up to date about every four months.

An important part of the construction investigating department's work is the sending out of trade requests three times a week. This means that all concerns and individuals under investigation at the time are checked up on by mail or phone, by contacting all companies or concerns connected in any way with the case throughout the metropolitan Detroit trading area.

A filing department keeps close tab on issues of the *Legal News*.

Construction Credit Reporting Is Different

The Bureau of Credits system is really the work of Walter A. Hoffman, president of the corporation. Trained as a civil engineer at the University of Detroit, Hoffman had been in the credit agency business many years when he came to see the opportunity for a credit agency which would service the construction industry exclusively. Credit work for construction cases differs sharply from the usual retail credit report in that it must go into the factor of the builder's performance record.

Taking over an all-round retail credit organization which had been in business since 1886, and had later been absorbed by Dun and Bradstreet to handle credit applications from builders and contractors, Hoffman began to build the present Bureau in the years just preceding World War II.

He is credited with having been chiefly responsible for organizing the Construction Industries Credit Group in Detroit as a means of getting everyone in the business acquainted. From a lunch roundtable with a few frequenters, the group has grown within only a few years to a membership of 300 and represents a full range of Detroit mortgage loan agencies, building products dealers, banks, and the Michigan Corporation & Securities Commission. It meets once a month to discuss specific credit risk problems and cases. The Bureau of Credits of course plays an important part in these deliberations.

In all the years of its operation, the Bureau of Credits has only been sued once. The Bureau won.

Full parking lot in early afternoon meant hundreds of customers were clamoring for the sale-priced building materials

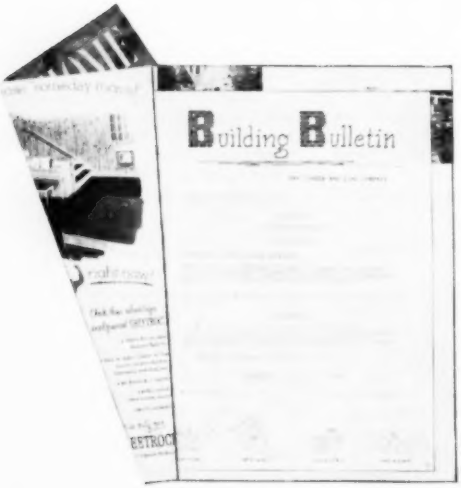
How to Stage a Successful Lumber

Chicagoland lumber dealer's careful planning resulted in a successful home show sale

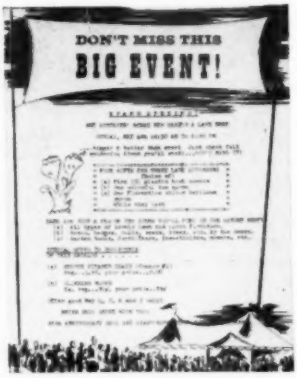
When a lumber dealer mixes merchandising values with glamour and carnival atmosphere, all of them combine to bring in new customers to the store, increase sales, and leave a lasting impression on the community. This was proved by Gee Lumber and Coal Company of Chicago in a two-week event that drew 10,000 customers and grossed about $140,000, far exceeding expectations.

The company's 26th anniversary sale combined the opening of a garden shop with the huge promotional sale of building materials. A home show was the highlight of the merchandising event and served as one of the at-

(*Continued on page 148*)



Promotional tip-in was placed in Popular Homes magazine



This direct mail piece was one of several sent throughout the area

Sales personnel directed customers to the centrally located premium booth. Premiums were issued here with the duplicate sales slip as the only requirement. This procedure relieved salesmen of handling gift distribution and left them more time for selling

Yard Promotion

JOBS TO DO

We are having a sales meeting after the store closes at 9 o'clock. We will hold this sales meeting in the office space near the switchboard. The purpose of the meeting is to go over the typewritten agenda and fully cover all points before the sale begins. It is important that everyone named on this list be present because it is important that everyone knows the procedure. You may be the buyer, you may be a salesman, you may be a stock control man, we want to impress on everyone of you the importance of being on the job and trying to work out a few of the many problems that always arise.

Make sure the parking lot is properly leveled, fence installed around playground equipment and the driveway marked out for cars parking on a slant toward the new garden store.

Check building of premium and model booth and arrange to move the premiums down from upstairs.

Anniversary sales tags on hardware merchandise.

Anniversary sales tags on merchandise in lumber store.

Hardware stock counters to be checked and make sure they are well stocked and clean as possible.

Check all items in lumber department, making sure bins are well loaded and in order.

Make sure that National Cash Register man will be available if he is needed on Sunday.

Make sure that electrician will work in the lumber sales store on May 4 and also be subject to call in case something has to be repaired or done in an electrical way. He will punch a separate card that day, going on sales.

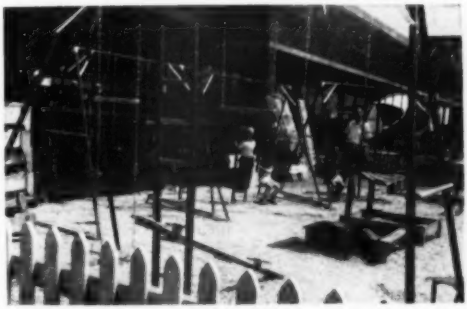
String the inside pennants and outside pennants and sparklers; hang and place all special signs for the anniversary sale.

Tag all sale hardware merchandise with the special Anniversary Sale tags. (Appliances, Furniture, etc., all goods that we intend to put a special price on).

Check stock on all counters and make sure all are full and properly arranged.

"Jobs To Do" list was prepared and chore to be done assigned

Full page newspaper ads in the Chicago Tribune carried the carnival-home show atmosphere



Children were entertained in the play yard

Display booths manned by manufacturers' representatives were placed in the lumber storage shed

Lumber orders were filled as usual during the sale. Note cart being assembled for delivery

tractions responsible for drawing the large crowds. To stimulate sales, premiums were offered to those who spent $2.50 or more. Women received free orchids, children, ice cream. Thirty-eight manufacturers cooperated by erecting display booths and demonstrating products during the event.

Publicity for the event, including four full-page newspaper ads, three television shows, and a 20,000-piece direct mail campaign, was planned by R. G. Hamrick, advertising manager. In addition, premiums, prizes, and free gifts were assembled. The glamour was included in the personage of Miss Chicago of 1951. The budget for all the promotion amounted to $16,000.

Small details requiring attention around the yard and sales room were listed and responsibility pinpointed two weeks in advance of the sale. Such time-consuming activities as checking counter stocks, re-pricing merchandise, erecting signs and decorations, as well as painting parking lot lines were included in the list of jobs to be done.

A sales manual was prepared for each member of the sales force. This mimeographed manual detailed all phases of the mechanics of the sale. Questions in stock,

Guide Book For Sales Personnel

This dealer did not overlook the importance of a well informed sales force. A book with full details concerning the sale and status of merchandise was prepared. An introductory section covered the "when, why and how" of the promotion. Premium handling and budget plans were detailed.

Purpose of Sale:

1. In addition to the obvious reason, (that of increasing immediate sales) we hope to introduce a great many more potential customers to our goods and services and to better our relations with our customers.

How Do We Propose to Achieve These Goals?

1. By the most extensive and intensive advertising and promotion campaign ever undertaken by the Gee Company or any other local company of similar size and nature.
   (A) *Short Outline of Promotion*
      1. 5 to 6 full-page newspaper ads
      2. 3 television shows
      3. 20,000 piece direct mail campaign
      4. Premiums and prizes
      5. Glamour (Miss Chicago)
      6. Free gifts/store decoration
2. By offering real merchandise values. (See attached list showing all sale items with before and after prices). You will adhere to regular prices on all items except those listed on the attached sheet, those tagged with special Anniversary Sale price tags, and those specifically excepted by your supervisor.
3. By Offering Premiums and Gifts of Real Value
   (A) *Screw-Driver set or bath towel*, (or two face towels) choice of one with any $2.50 or more purchase, or both with any $10.00 or more purchase. (One deal per customer.)
   (B) *Orchids to the ladies and* ice cream dixies to the kiddies absolutely free.
4. By Using Decorations Effectively
   (A) *Signs, pennants, streamers,* balloons, music, colorful decorations throughout.
5. By Glamorizing the Event
   1. *Miss Chicago* (Appropriately attired) will be here to add to the festivities on five days.
6. By Tying in a Huge Home Show
   1. *Approximately 35 to 40 manufacturers* will set up exhibit and demonstration booths and will be on hand to demonstrate and explain their materials. Most manufacturers, in connection with their exhibit, will run contests and offer valuable prizes to our customers; a few prizes for example: Delta Circular Saw, 50 bags of Zonolite, five gallons of paint, kitchen cabinets, tool and drill sets, etc. Drawings for these prizes to be held at 8:45 p.m. Monday. (Winner need not be present.)

Employee Prices Versus Sale Prices

1. Employee discounts are 5 per cent on sale prices. Try to avoid buying when store is busy.

Distribution of Premiums (Screwdriver set and towels)

1. A central premium booth will be set up in the Hardware Store and all premiums will be distributed from there in the following manner:
   (A) *Cash and Carry Sales*
      1. Have customer take his cash ticket to premium booth, have it stamped by the attendant and get his premium.
   (B) *Deliveries: Where a deposit is taken or entire amount is paid.*
      1. Have customer take both his cash receipt ticket and delivery order to premium booth, have both stamped, surrender delivery order to the attendant and get his premiums.
   (C) *Charge*, take-with sales:
      1. Have customer take charge pad to booth, have his copy and our copy stamped, surrender all but his copy and receive his premium.

Model demonstrates a magnetic saw and sander

A radial saw manufacturer's representative shows how builders can make complex rafter cuts

delivery, and budget plans were answered.

The display booths and demonstrations were set up in the lumber storage shed. These were manned by manufacturers' representatives. Valuable information concerning home building, repair, and maintenance was available throughout the store and in the booths.

The sales staff operated efficiently because of several informative sales meetings conducted before the event. This background, along with the manual, made it possible for the staff to handle the great volume of business without confusion or delay.

A router is shown to a group of home show visitors

(D) *Charge* (at store) to be delivered
1. Have customer take the delivery order to booth, have it stamped, surrender it and receive his premium.

(E) *C.O.D.'s* (in store) (no deposit)
1. Same as item "D."

(F) *Phone Charges* or Phone C.O.D.'s
1. Let the customer know that he is entitled to a premium and that none will be delivered. Tell him to bring in the attached slip and his bill and he may pick up his premium. When he does come in, we will retain the memo slip and stamp his bill. The "Slip to be Attached."

"IMPORTANT NOTICE"

Your purchase entitled you to a valuable free gift! Please bring this slip and attached bill in for it.

(G) *Employees will adhere* to same rules

(H) *The free gifts* (orchids, and ice cream) will also be distributed from a central booth. No purchase necessary. One per child.

What Credit Will Be Given on Goods Purchased at Sales Price and Then Returned by the Customer

1. If merchandise is faulty or the trouble is our fault, allow full credit, on the sale price.
2. If the customer just decides he doesn't want it, etc., credit him with 10% less than his purchase price.

Deliveries

1. Never promise delivery on a specified date unless you are positive delivery can be made.
2. Check with shipping on all borderline cases.
3. Justify to the customer why his delivery might be a little later than he wishes.

Financing: Budget Plans

1. As you know, material purchases may now be financed under FHA with no down payment necessary. Minimum purchase requirements are at least $60, but preferably $100 or over. (These amounts may be financed for as long as one year.)

Answers on Deliveries Made Easy for Salespeople

This interesting electrical device tells salespeople at a glance when a customer's order may be delivered. The color of the light indicates what day the next truck will be in the customer's vicinity. Green light means "OK", yellow light means "?", and red means "NO"

Considerable interest was shown in power tool exhibits. Here, a manufacturer's representative is shown explaining a power drill

PROMOTION SCHEDULE & COSTS

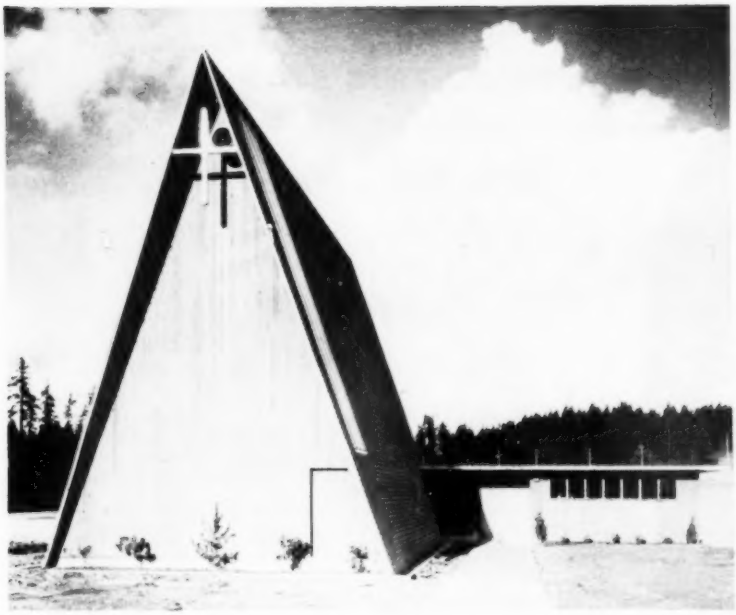
Spring Garden catalog mailing, 5000	$ 500.
Card Mailing Announcing the Anniversary Sale (6,500 pieces)	120.
1st Newspaper Ad. (1-page Trib)	1,600.
Terry Georgian (Model) Miss Chicago	25.
2nd Newspaper Ad. (1-page Trib)	1,700.
Terry Georgian (Model) second appearance	50.
3rd Newspaper Ad. (1-page Trib. SW-W)	1,600.
Terry Georgian (Model) third appearance	50.
4th Newspaper Ad. (1-page—5-town)	600.
5th Newspaper Ad.	1,600.
PREMIUMS (ESTIMATED AMOUNTS & COSTS)	
A. Screwdriver Set (750 units)	265.
B. Towels (2000 units)	1,075.
C. Orchids (1000 units)	90.
D. Ice Cream Dixies (1000 units)	66.
Miscellaneous (Store Decorations, Signs)	
Pennants, (outside)	20.
Pennants, (inside)	60.
Signs (inside)	100.
Top Hats	24.
Magazine Tip-In	
Popular Home, 1000 pieces cost	25.

New corner reinforcing for drywall application made its first appearance in the Chicago area at the home show

MANUFACTURERS WHO PARTICIPATED

Johns-Manville Corp.
United States Gypsum Co.
Wood Conversion Co.
Zonolite Co.
Rockwell Mfg. Co., Delta Power Tool Div.
Black & Decker Mfg. Co.
William Barr & Co. (Kleen Strip)
G. N. Coughlin (Process 33)
Devoe & Reynolds Inc.
Sunbeam Corp.
R. Cooper, Jr.
Kentile Inc.
Fremont Rubber Co.
Bruce Co., E. L.
American Stove Co. (Magic Chef)
Standard Dry Wall Products Inc., (Thoroseal)
U. S. Plywood Corp.
Frantz Mfg. Co.
Belens Mfg. Co. (Belens Tractors
Kimberly-Clark Corp. (Kimsul Insulation)
Masonite Corp.
St. Regis Sales Corp., Panelyte Div.
Brammer Mfg. Co. (Brammer Kitchen)
Marsh Wall Products Inc., (Marlite)
Syncro Corp.
Bedlon Co. (Beacon Wax)
Swift & Co. (Vigoro)
Reo Mowers
California Insecticide
Glamorene
Douglas Fir Plywood
G. E. Furnace
Porter-Cable Portable Tools
H. T. Campbell Sons Corp. (Sakrete)
Reynolds Aluminum

Doughnuts for visitors were made by these representatives



Roof (?) or walls (?) are covered with cedar shingles. Redwood boards applied vertically enclose the other two sides. Offices and Sunday School room are in the low flat-roofed wing

Is This Church Wall-less or Roof-less?

THE CEDAR HILLS Community Church at Beaverton, Ore., is 39 feet high, 60 feet long and 29 feet wide at grade level. Its tent-like or tepee-like form was dictated by the low ground on which it stands and is an attempt to give height and attention-value to a structure without tower or steeple. It was designed by Warren Weber, Portland, Ore., architect.

Laminated beams made up of 12 thicknesses of 2x7-inch Douglas fir form the skeleton and are set on 8-foot centers. They are left exposed on interior. 2x6-inch hemlock tongue and groove boards are applied over beams and form the base for metal foil insulation

Inside surfaces of the hemlock boards were kerfed every inch, thus hiding joints and giving acoustical value. Light comes not only through glass panels over chancel but also from glass panels at rear of nave. The building has radiant heating from copper tubes imbedded in the concrete floor

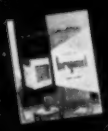
HITCH YOUR WAGON TO THIS STAR... bryant

See what you get

IN THE SENSATIONAL

bryant "327" unit heater

NOW AVAILABLE IN ALL POPULAR SIZES



FREE FOR THE ASKING! Call your Bryant distributor for your copy of this 20 page fully illustrated book which provides you with much helpful information on specifying, installing and properly locating unit heaters. This comprehensive booklet has been designed to help you.

Sets NEW Standards in...

Quiet Operation . . . NO narrow passages to cause whistling . . . it's open, streamlined—efficiently designed to HUSH the air flowing through.

Compact . . . the "327" installs within inches of ceiling, saving space. It's lighter, easier to handle, easier to install.

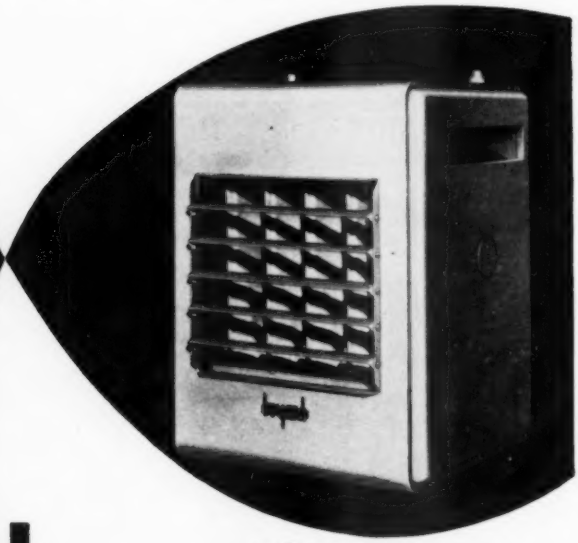
Comfort . . . no cold blasts at start of cycle. Fan won't start until the heat exchanger is warm enough to assure comforting heat.

Long, Trouble-free Performance . . . the "327" retains its high efficiency for life. Efficient Venturi tubes provide longer, trouble-free service, less heat loss up the flue.

Extra-sensitive Controls . . . responsive low-voltage controls mean better, more uniform heat. Safety controls prevent overheating.

Quick, Easy Servicing . . . easy-open access panel at bottom permits cleaning and servicing without removing unit.

Yes, the revolutionary Bryant "327" opens up hundreds of new unit heater sales for you. See your Bryant distributor today or write Bryant Heater Division, Affiliated Gas Equipment, Inc., Dept. 189, 17825 St. Clair Ave., Cleveland 10, Ohio.



bryant®

BEST BUY IN...

HEATING
AIR CONDITIONING
WATER HEATING

Low-cost way to use THERMOPANE IN EVERY WINDOW OF THE HOUSE

You probably agree that houses will sell faster if you offer home owners the benefits of *Thermopane** insulating glass in every window.

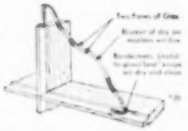
But you may wonder about costs. Take a tip from builders who are using *Thermopane* in every window of moderately priced homes. To keep costs down, you do two things:

1. Use standard sash that will take standard-sized *Thermopane* units made of DSA glass.
2. Use sash that will keep window installation and glazing costs at a minimum.

Many builders are using panel windows. The frames come to the site either fabricated and glazed or in packages of pre-cut and pre-rabbeted members that are quickly assembled.

Panel windows consist of 2-6's put together in a horizontal grid pattern as shown above. A window can be a single light, or up to three lights wide and three lights high. Standard ventilators can be inserted wherever desired—with screens and weather stripping. Fixed lights take standard $45\frac{1}{2}''$ x $25\frac{1}{2}''$ *Thermopane* insulating glass. Ventilators take $42\frac{1}{2}''$ x $22\frac{1}{2}''$ standard units.

You can also use standard *Thermopane* made of DSA glass in double hung and casement windows. Of course, for larger windows where utmost clarity is desired, you'll want to use *Thermopane* made of L·O·F Polished Plate Glass.



Your L·O·F Distributor or Dealer can give you full information. Or mail the coupon. *®

Libbey-Owens-Ford Glass Company
3102 Nicholas Building, Toledo 3, Ohio
Please send me complete information on installation methods for low-cost windows of Thermopane.

Name _____
(Please Print)

Address _____

City _____ Zone _____ State _____

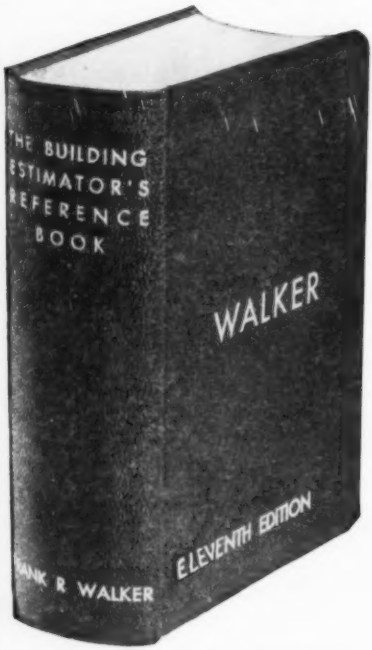
L·O·F GLASS PLASKON FIBER-GLASS

Thermopane INSULATING GLASS

LOOK FOR THE NAME ON THE SEAL BETWEEN THE PANES

New Eleventh Edition (1951)

The Building Estimator's Reference Book



1790 pages, 1000 tables, 1000 illustrations, 28-page cross index, 4½ x 6½, flexible cover

Information You Need on

Excavating, Foundation Work, Concrete, Framing, Asbestos Shingles and Siding, Roofing, Wallboard and Metal Trim, Lathing and Plastering, Millwork, Glass and Glazing, Painting and Decorating, Masonry, Sheet Metal, Glass Blocks, Acoustical Tile, Air Conditioning, Heating—and hundreds of other building subjects.

By Frank R. Walker

Production methods have changed greatly within the past few years. New building materials have come on the market. New tools have improved construction methods. Costs are way up on many items. These changes have made previous estimating data obsolete.

The Eleventh Edition contains up-to-date estimating and cost data on all classes of building construction. Information on house and other light construction work is complete. Thousands of items that enter into estimates are logically arranged and tabulated for ready reference.

Since the first WALKER appeared 35 years ago more than 106,000 have been published. Kept abreast of developments in the industry by frequent revisions it became the leader in its field. It has long been recognized as the only complete compilation of estimating and building cost data available in one book. Whether you build houses, do remodeling, alterations or repair work you will find in it the information you need to prepare accurate, dependable estimates.

This New Edition Will Help You

1. Increase your profits with more accurate estimates
2. Stop losses by checking out costly omissions and mistakes
3. Prepare more accurate estimates by using correct methods of measuring and "taking off," figuring quantities and estimating labor hours
4. Save your estimator valuable time by providing him with latest cost data
5. Increase your daily volume and reduce labor costs on the job by adoption of the most economical methods and utilizing some of the new tools that are pictured and described

SEND FOR YOUR COPY TODAY

Send for your copy of the new Eleventh Edition of THE BUILDING ESTIMATOR'S REFERENCE BOOK today. Then you can take advantage of the many new methods and ideas in it for increasing your profits through better estimates.

With Your Copy You Will Receive FREE a Copy of the

Vest Pocket Estimator

This 220-page 2½ x 5-inch book is not sold separately. It is the most popular vest pocket reference ever used by contractors. Estimating and cost data most frequently referred to is herein presented in condensed tabular form. Rough cost figures on small jobs can be worked out and submitted within a few minutes.

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Enclosed find $12 remittance for which send me a copy of the New Eleventh Edition of THE BUILDING ESTIMATOR'S REFERENCE BOOK and a FREE copy of THE VEST POCKET ESTIMATOR. If I do not find the books entirely satisfactory I will mail them back within five days of receipt and you will refund my $12.

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A. B. 10-52

The farthest projection of **Beauty** and **Performance**

REYNOLDS *Lifetime* ALUMINUM BUILDING PRODUCTS

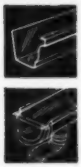
Reynolds *Lifetime* Aluminum Gutters project beauty and performance years ahead. Rustproof and stain-free without painting, they cost much less than other rustproof metals; save further by slip-joint installation.

Reynolds Aluminum Windows carry farther the acknowledged superiority of aluminum...maintenance-free beauty, trouble-free performance. Made of Reynolds own extruded shapes, corner-welded for greater rigidity and weathertightness, their satin finish is outstanding.

Besides these visible enhancements, you will want the invisible magic of **Reynolds Aluminum Reflective Insulation**...efficiency without bulk, perfect vapor barrier. And Reynolds *Lifetime* Aluminum Flashing will cost you less, look better, last longer.

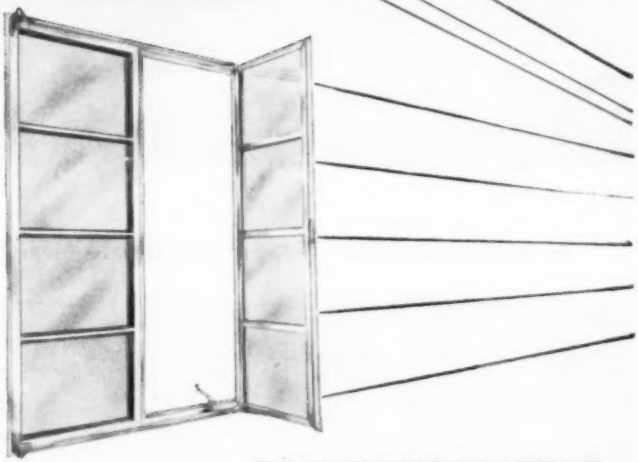
Write for literature.

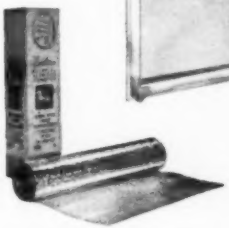
Reynolds Metals Company,
Building Products Division,
2003 South 9th Street,
Louisville 1, Kentucky.



Reynolds *Lifetime* Aluminum Gutters come in ogee and half-round styles, smooth and stipple embossed finish, with matching downspouts and complete fittings.

Reynolds Aluminum Windows comprise a complete residential line: Casement, Double-Hung and Awning Windows with Auto-Lok hardware; Fixed and Picture Windows. Write for catalog.





Reynolds Aluminum Reflective Insulation is a superior lamination of embossed foil on kraft paper. Double-faced (Type B) and Single-faced (Type C). In rolls of 250 sq. ft., 25", 33" and 36" wide.

Military demands for aluminum limit supply of these products, but Reynolds is rapidly expanding aluminum capacity. Keep checking your supply source.

REYNOLDS ALUMINUM

Why did 47 people rush out to

In his first project, Mr. Smithson sold Mrs. J. W. McLeane a house with

"I'm so glad this G-E Dishwasher was included in the *original* cost of the house, Mr. Smithson. I probably would have felt that I could not afford it at the time!

"Getting a G-E Disposall® that automatically flushes away garbage certainly appealed to me when we bought the house! I'd never want to be without it from now on!

"Of all the refrigerator brands you could have picked, the G-E is my favorite! It's so good-looking, so quiet, and never has given me a minute's trouble from the time we moved in!

"It's so nice to have these frozen foods right on hand . . . not to wait in line at the grocer's every other day! This G-E Freezer is such a convenience and a money-saver, too!

say.. "I'll take it!"

THIS photograph was snapped one Sunday afternoon in April of this year in R. O. Smithson Jr.'s new Conant Village development in Beverly, Massachusetts.

The people in these cars were not just snooping. They came out to look at houses and to buy houses. Within the next few days, a total of 17 people said, "I'll take it!"

What makes this success story even more interesting is the fact that new houses near by—which had been on the market for several months—were NOT selling!

Why did everybody prefer Mr. Smithson's houses?

Let Mr. Smithson tell you. His experience may help you to sell houses *faster*, too.

"Anybody with two eyes in his head," says Mr. Smithson, "can see that the place a woman starts for almost as soon as she sets foot into a house is the *kitchen*.

"Our prospects are delighted not only to see the fine array of General Electric Appliances in our $14,500 home, but to know that the monthly outlay for them is no more than a typical telephone bill!

"You see, the cost of these G-E Appliances is figured over a long-term mortgage, *and the actual cost to the home-owner is less than $5.00 a month*, a sum they can easily afford!

calls back, too!

"Furthermore," says Mr. Smithson, "I've been calling back on the people who bought my houses to find out whether they are *completely* happy with their new G-E All-Electric Kitchens.

"These call-backs convince me, more than ever, that not only is it good business to include G-E Appliances in my new homes, but for the long-range outlook *it's one of the smartest things a builder can do today!*

"I wouldn't think of putting up houses today without a G-E Kitchen."

a suggestion for you

We would like to work hand-in-hand with you to achieve similar results for you in *your* area. We can help you *pre-sell* your houses just as we have for so many other builders throughout the United States.

Get complete facts about the G-E Kitchen-Laundry through your local G-E distributor, or write to the Home Bureau, General Electric Company, Louisville 2, Kentucky.

GENERAL ELECTRIC

a G-E Kitchen. Here you see him calling back to get her reactions.

"So easy just to sit here and watch this G-E Rotary Ironer do the clothes in a fraction of the time it used to take. Most all my friends want G-E Appliances, too!

"This G-E Range is so much cooler than the old stove I had to pamper! So easy to use, and so easy to keep clean, too. You couldn't have picked a better range, Mr. Smithson!

"It was nice to know when we signed up for the house that we wouldn't have to spend a lot of money for an automatic washer or other necessary labor-saving appliances!"

Mr. Smithson knows that when he sees a G-E emblem on a water heater, refrigerator, or any other appliance, he can rest assured that it's *reliable*. G.E. is *famous* for its dependability.

MODULAR PRINCIPLES

Chapter 10 — First Floor Ceiling Construction

By Griffith S. Clark

BEFORE starting the design details of the first floor ceiling, it is essential to determine what type of ceiling covering will be used. If plaster is to be the covering medium, metal lath reinforcement will be necessary at the wall joint. Backing must be secure before this lath is applied. Failures occur when such reinforcement is not applied securely or is omitted completely. Dry wall products must be applied in strict accordance with the manufacturer's specifications.

Since all wall sections are centered in 4-inch control areas and the right angle direction of all joist ends on exterior walls is terminated by a header of joist dimension, the bearing of the ceiling joists is 2 inches on the outside and 1 13/16 inches on bearing. This means that all ceiling joists are in 4-inch increments and 4 inches longer than room dimension. Owing to the necessity for backing and also because of certain natural unevenness in joist stock, there has been a growing tendency to use strapping to correct these difficulties.

The starter piece should be a 1x3, while intermediate pieces are 1x2 stock, 12 inches on centers, which run at right angles to the joists. The doubled starting joists at the ends of the building are spaced with 2x4 blocks, 24 inches on centers. This will position the inside joist so that it will receive the 1x3 and 1x2 strapping. Nine-inch spacer pieces of 1x2, applied on the bottom of this joist between the 1x2 straps, will supply support for the intermediate nailing.

In dry wall construction, this supplies backing for all edge nailing and covering mouldings. The 1x2 stock tends to correct the irregular surfaces. It replaces the necessity for bridging and adds additional rigidity to the structure (see Figure 1).

The principle of using 24-foot 4-inch, 26-foot 4-inch and 28-foot 4-inch widths is justified in the use of stock sizes for length and "two-by" headers. With proper planning and engineering of the plan, it becomes evident that the same procedure holds for first story ceiling framing. When walls are properly located, the bearing wall will support joists which are butted over the center of the bearing partition. A 2-foot splice of 1x6 boards should be nailed securely to each end of the joists and toe-nailed to the partition below (see Figure 2).

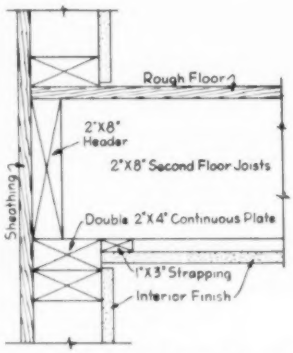


FIG. 1—Typical section through exterior wall where dry wall construction is used. Note position of 1x3 starter piece strapping

Expensive Items Eliminated

The principle of space and span requirement for code authorities must be observed. However, when occupancy of the second floor is planned, 3x8s should be considered instead of 2x10s or 2x12s. Intermediate partitions usually occur which will allow the use of 2x8s in shorter spans and 3x8s in longer spans. With proper spacing, this will eliminate notching of joists and ledgering of headers, both of which are expensive and time-consuming items to be avoided whenever possible. It must be observed that plastered ceilings add a dead load of approximately 11 pounds per square foot to second floor joists, a load not carried by the first floor joists.

The procedure of spanning ceiling joists greater than 16 inches on centers is usually avoided when rock lath and plaster is used. Cost of the few joists saved will more than compensate for the extra catting required for backing to accommodate the lath nailing.

In some designs, especially when a dining alcove is off the living room, exceptionally long joists are required in order to frame properly. When this condition occurs, a housed girder may be undesirable. Instead, this can be successfully overcome by a ledgered girder supported by the outside wall and the alcove entrance wall. Extra studs should be located within the walls to support the bearing for this member. Joists should be notched to fit the ledger and butt the faces of the girder. Spans of 8 feet or over should have necessary bridging unless strapping is used.

Joist Span Tables

Because of confusion in defining floor joists and ceiling joists, reference should be made to structural requirements. Floor joists should carry a deflection total design load of 40 pounds per square foot. Ceiling joists with limited attic storage carry fiber stress of total design load of 30 pounds per square foot, composed of 20 pounds superimposed and 10 pounds dead load. Deflection total design load is 20 pounds per square foot. Where no attic storage occurs, deflection and fiber stress total design loads are 10 pounds each per square foot.

The span tables shown on opposite page are generally accepted as good procedure.

Flat roof joists supporting finished ceilings are required under total deflection with the design load of 20 pounds per square feet. Such construction will be discussed in a later article.

FLOOR JOISTS

Coast Region, Douglas Fir S4S

1960-f

Nominal Size In.	Spacing In.	Select Structural Ft. In.	No. 1 Ft. In.	Dimension No. 2 Ft. In.	No. 3 Ft. In.
2x6	16	10 2	10 2	10 2	6 7
2x8	16	13 8	13 8	13 8	10 1
2x8	12	17 8	17 8	17 8	14 10
2x8	16	16 0	16 0	16 0	12 10
2x10	16	17 3	17 3	17 3	13 9
2x12	16	20 10	20 10	20 10	16 1

Southern Yellow Pine S4S

Nominal Size In.	Spacing In.	No. 1 Dense 2-In. Dim. Ft. In.	No. 1 2-In. Dim. Ft. In.	No. 2 Dense 2-In. Dim. Ft. In.	No. 2 2-In. Dim. Ft. In.
2x6	16	10 2	10 2	10 2	10 2
2x8	16	13 8	13 8	13 8	13 8
2x8	12	17 8			
2x8	16	16 0			
2x10	16	17 3	17 3	17 3	17 3
2x12	16	20 10	20 10	20 10	20 10

CEILING JOISTS

Limited Attic Storage
Coast Region, Douglas Fir S4S

1960-f

Nominal Size In.	Spacing In.	Select Structural Ft. In.	No. 1 Ft. In.	No. 2 Ft. In.	No. 3 Ft. In.
2x4	16	8 3	7 1	5 5	3 6
2x6	16	12 10	12 10	12 7	8 0
2x8	16	17 1	17 1	16 9	12 4
2x10	16	21 8	21 8	21 3	16 10

Southern Yellow Pine S4S

Nominal Size In.	Spacing In.	No. 1 Dense 2-In. Dim. Ft. In.	No. 1 2-In. Dim. Ft. In.	No. 2 Dense 2-In. Dim. Ft. In.	No. 2 2-In. Dim. Ft. In.
2x4	16	8 3	8 3	8 3	8 1
2x6	16	12 10	12 10	12 10	12 7
2x8	16	17 1	17 1	17 1	16 9

No Attic Storage
Coast Region, Douglas Fir S4S

1960-f

Nominal Size In.	Spacing In.	Select Structural Ft. In.	No. 1 Ft. In.	No. 2 Ft. In.	No. 3 Ft. In.
2x4	16	10 6	10 6	9 5	6 2
2x6	16	16 5	16 5	16 5	13 11
2x8	16	21 10	21 10	21 10	20 11

Southern Yellow Pine S4S

Nominal Size In.	Spacing In.	No. 1 Dense 2-In. Dim. Ft. In.	No. 1 2-In. Dim. Ft. In.	No. 2 Dense 2-In. Dim. Ft. In.	No. 2 2-In. Dim. Ft. In.
2x4	16	10 6	10 6	10 6	10 6
2x6	16	16 5	16 5	16 5	16 5
2x8	16	21 10	21 10	21 10	21 10

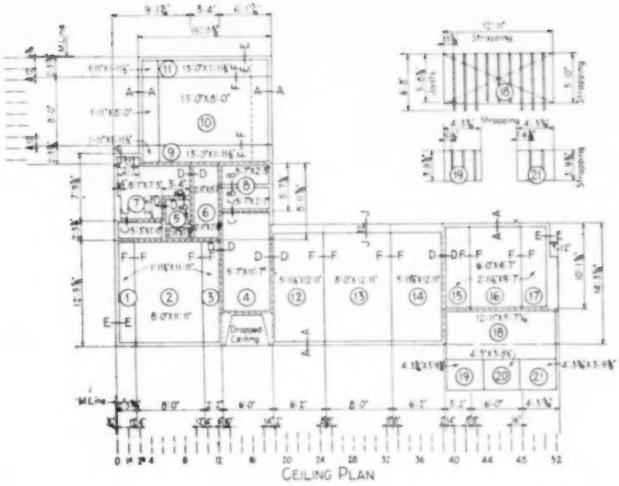


FIG. 3—Ceiling plan showing joist framing in two directions

The same rules governing the field erection of floor joists apply to ceiling joists. Likewise, the design must incorporate the proper identifying symbols so that scheduling materials to the job site can be done. Strapping should be cut modular in length and correspond to the nominal room dimension. Sectional ceilings consist of joists, strapping and finish material. When used for first-story ceilings of a two-story house, the joists must conform to first-story floor space and span requirements. When the second story is a half story, the roof rafters and collar beams replace the joists and the ceiling consists of only strapping and finish material. The strapped ceiling, which will be a future subject in this series, deserves special consideration as a time saver.

Types of Ceiling Design

Design of sectional ceilings begins with the reflected ceiling plan. This shows the ceiling layouts desired by the architect. The following types of ceiling design are listed for the convenience of the designer:

1. Plain ceilings. Use of fiberboard in ceilings having less area than a single sheet of the covering material, or when gypsum board is used with taped joints.

2. Beamed ceilings. Long, rectangular rooms are sometimes divided into three 8-foot panels by the use of two beams. These beams can be true or false and sometimes consist of an overlay strip of the covering material.

3. Level ceilings with beveled joints. This type includes tile finishes. Strapping must be provided for all joint nailing.

4. Ceilings with recessed center panels and overlay borders.

5. Ceilings having raised or dropped center panels with recessed borders. Center panels can be dropped as much as 4 inches below the borders and soffit lighting installed when desired.

Framed sections are laid out similar to the first floor framing. However, certain definite rules should be followed to make the design as sim-

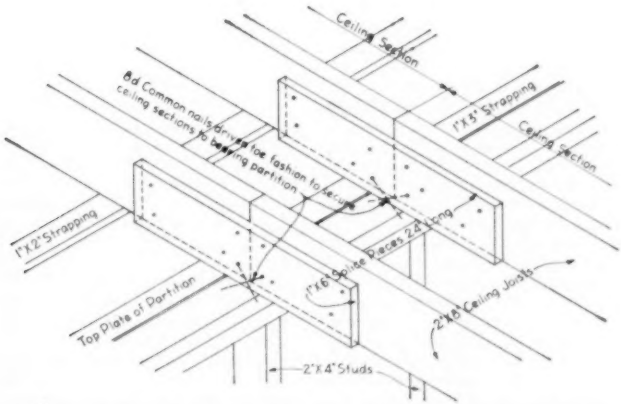


FIG. 2—Joists butted over bearing partition and spliced by 2-foot "one-by" boards

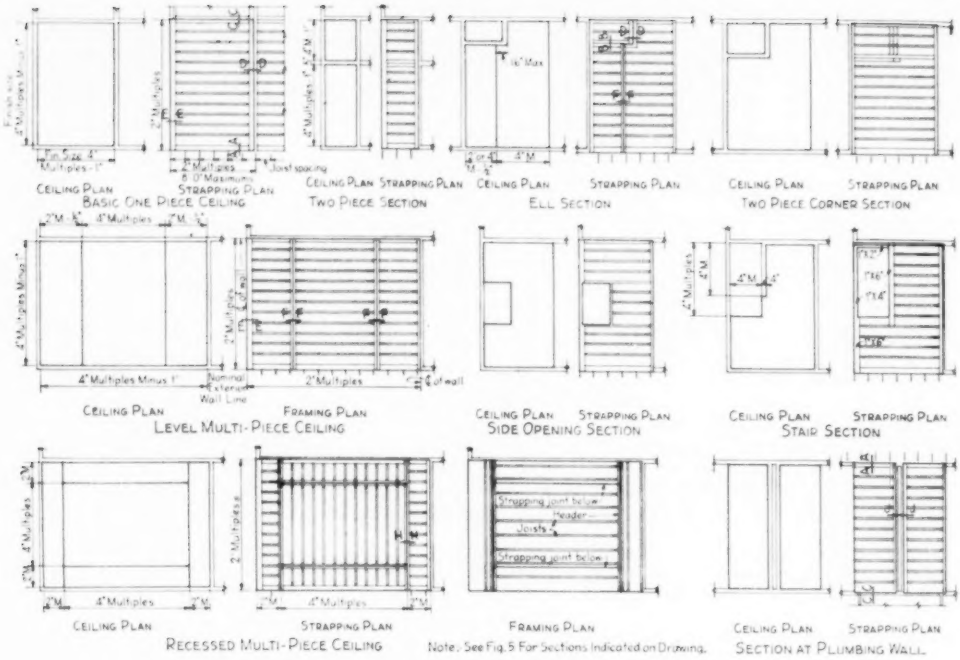


FIG. 4—Various types of strapping conditions

ple and direct as possible.

Outline all walls and partitions. Floor members for sectional ceilings should be framed center to center of walls and partitions. In this way, framing may be in either direction; that is, either transverse to the house or along the length of the house. Joists are in 4-inch multiples and each one is represented by two lines drawn 2 inches apart for identifying purposes. Joists will occur exactly as in conventional construction with 16-inch centers. There is no doubling at the joints, thus eliminating the possibility of a hard spot on the flooring above.

When a tick strip denoting the zero starting point at the left end of the building is laid out to show 16-inch multiples only, there is no problem in fabricating the framing sections.

Only Three Operations

After the framing layout is completed, place the reflected ceiling plan over the floor plan and outline the sections, giving identifying symbols. Each section should have dimensions of the surfacing material marked plainly on the plan. The dimension parallel to the front of the building should be given first, followed by the depth (see Figure 3).

The 4-inch control greatly simplifies fabrication of ceiling sections. There are actually but three operations:

1. Nailing together of headers and joists, the headers being the actual length of the section width.
2. Assembly of the strapping sections with corrugated fasteners, and locating and nailing them to the joist members.
3. Application of the finish material to the section.

Figure 4 denotes various strapping conditions usually found in average construction, showing how backing is incorporated for flat and recessed panel conditions. Since the second 2x4 plate is eliminated in this type of construction, the one-by strapping becomes the continuous plate tying the walls together. It should be noted that all strapping in depth runs continuously from the exterior wall edge to the center of the bearing partition and the intermediate pieces butt into it. Exterior markings denote the left face of the joist when in final position. When the edge of the strapped section does not fall on a joist for nailing, a 2x4 is field-applied (see E-F in Figure 5).

This framing uses 1x6, 1x4 and 1x2 members. Whenever the ceiling joist and header falls on the outside wall, a 1x6 is used, as shown in A-A of Figure 5. When wall sections occur perpendicular to joist direction, 1x4s are used as in B-B and C-C. When joints occur parallel to joists, D-D and E-E apply.

Procedure Easily Applied

An example of the facility with which this procedure may be applied is shown in the following cutting schedule for sections 1 and 2 in Fig. 3. Over-all length is shown as 12 feet 5⅝ inches, which is joist length of 12 feet 4 inches plus header width of 1⅝ inches. Width is designated as 2 feet 3 15/16 inches (2 feet 4 inches minus the 1/16 inch from starting point of the modular line). Since the reflected ceiling plan shows the covering material is divided into three parts and the interior surfacing is room size less one inch, then the two end sections will each be ½ inch short in covering material.

According to the space and span table for Douglas fir with no attic storage, 2x6s will be required. However, where codes allow, 2x4s and a

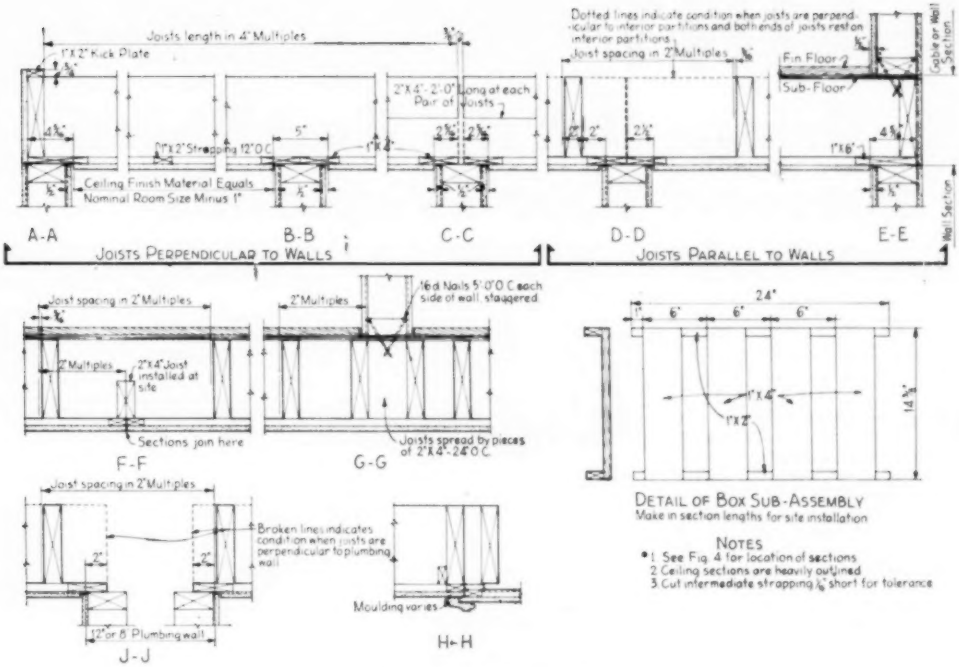


FIG. 5—Typical ceiling details

strong back could be used and field applied. Materials needed in Section 1:

	Nominal Size	Length Ft.	In.
1 header	2x6	2	3 1/2
2 joists	2x6	12	4
1 pc. plate	1x6	12	5 5/8
1 pc. plate	1x2	12	5 5/8
1 pc. plate	1x6	1	8 5/16
1 pc. plate	1x4	1	8 5/16
10 pc. strapping	1x2	1	8 5/16

The 1-foot 8 9/16-inch dimension occurs when the width of a 1x6 and 1x2 are subtracted from the over-all width of 2 feet 3 13/16 inches. One piece of covering material, 1 foot 11 1/2 inches by 11 feet 11 inches, is used.

Materials used in Section 2:

	Nominal Size	Length Ft.	In.
1 header	2x6	8	0
6 joists	2x6	12	0
2 pc. plate	1x2	12	5 5/8
1 pc. plate	1x6	7	8 5/8
1 pc. plate	1x4	7	8 5/8
10 pc. strapping	1x2	7	8 5/8

Shop Fabrication

For shop fabrication, use the universal type jig featured in last month's modular article. Facing the jig from the zero end and looking at the lengthwise direction of the jig, place the 2-foot 3 13/16-inch header snugly in the right end against the guides. Put the starting joists lengthwise against the long guide. Tack a 1x2 across the joist end to the jig face. Place the next joist so that its righthand face coincides with the 1-foot 4-inch modular line.

Nail the joists to the header, after they have been trued up, with three 16d common nails. Keep crowns down. Turn the section over sideways so that the framing will now come in its normal position. The header will extend 12 inches beyond the left face of the joist.

To fabricate Section 1, for example, put the 1x6 which is 12 feet and snugly against the zero end. Put the 1x6 piece which is 1 foot 8 9/16 inches long against same on zero end and along the short guide. Then drop in the 1x2 pieces of similar length at 12-inch intervals with the 1x4 piece on the extreme right hand end. Put the long 1x2 member on the opposite side, parallel to the 1x6. Fit tightly and connect with corrugated fasteners driven at approximately a 45-degree angle.

Place the strapped section on the framed section and nail at one corner and one end to frame section. Square with a diagonal and nail to framing section with one 6d common nail at each intersection of joist and strapping, and at 12-inch distances when flush with joists and header. Apply the finished material, using setbacks for various conditions as shown on Figure 5.

Big Labor Saving

When such sections are erected at the site, they automatically plumb the wall sections. If the first floor platform is accurately constructed, the walls are erected and tied together at the corners. Intersecting partitions are erected but not plumbed until the ceiling sections are placed. This makes every room square and eliminates the necessity for a great deal of field labor.

The most important contribution is that interiors of all walls and ceilings are in place when the house is erected. Trimming out labor is reduced to a minimum.

NEXT MONTH'S ARTICLE on modular principles will discuss half-story problems.

PAINT

Brings Out the Best Points—Corrects Poor Proportion

PAINT STYLING IS an indispensable tool for the sales-wise builder. Styling is the technique of using paint intelligently to bring out the good features of a building and to minimize those features that are less desirable, thus getting the most out of the design.

There are a few basic rules:

To emphasize a good feature—surround it with a different color.

To minimize a bad feature—surround it with a matching color.

The warm colors—red-violet, red, red-orange, orange and yellow-orange—are "advancing" colors, and seem to bring things nearer.

The cool colors—yellow-green, green, blue-green, blue and blue-violet—are "receding" colors and seem to push things away.

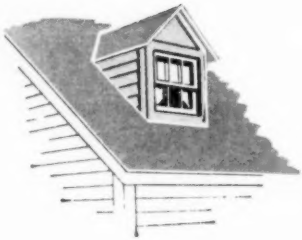
Light colors reflect more light and make things seem larger and also farther away.

Dark colors absorb light and make things seem smaller and closer. They tend to advance.

The brighter in color an area is, the larger it seems. The "largest" color is yellow, followed by red, green, blue and black.

Equal or approximately equal areas of contrasting colors are not pleasing.

1 ***To camouflage a chimney*** that protrudes too much or that seems too small, paint it the same color as the house.



2 ***If dormers seem too prominent,*** paint them the same color as the roof.

3 ***To make a small house seem larger,*** paint the dormer faces the color of the side walls of the house.

4 ***If a roof line is cluttered with gables,*** paint them the same color as the roof—dark. Then paint the front door and shutters on lower floor in an appealing combination. This centers attention.

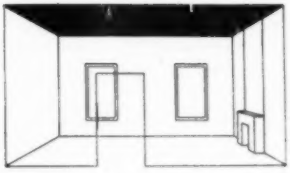
Next Month

THE PAINTER'S KIT

Some of his techniques with tools explained.

5 ***Emphasis on horizontal lines*** flattens the house that appears too high. Paint the roofs dark, as well as shutters of the upper story. Dark shutters upstairs, light ones down, strengthen horizontal lines.

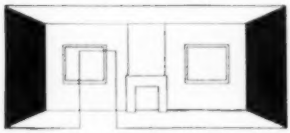
6 ***Using too many types of building materials*** breaks up the feeling of unity a house should have. Suppose you have foundation and garage in gray cinder block, a wing and chimney in red brick, a white clapboard, white shutters, and the body of the house in stucco. Proper paint styling would be entire body of house and chimney in white, shutters in maroon, front door and inside of garage, straw color. The result —unity and an effect of greater size.



7 ***To lower a ceiling in appearance,*** use a dark color on the ceiling and a light color on the walls. A dado will also help, painted bone white or platinum gray.

8 ***To make a room seem higher,*** use warm colors on the walls, ceiling in bone white.

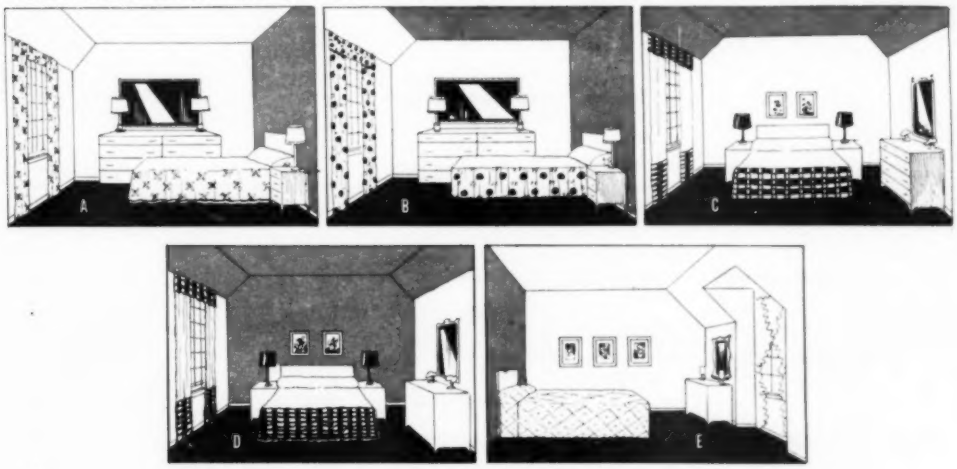
9 ***If a room seems too small,*** paint ceiling, woodwork and walls in a receding color. Very light tints of receding colors give maximum size to a room.



10 **If a room seems too long,** paint the two end walls in strong dark tones. Use a light tint of the same color on the two side walls, or platinum gray.

11 ***One wall painted in a color*** or pattern different from the other three will add interest to an otherwise dull-shaped room.

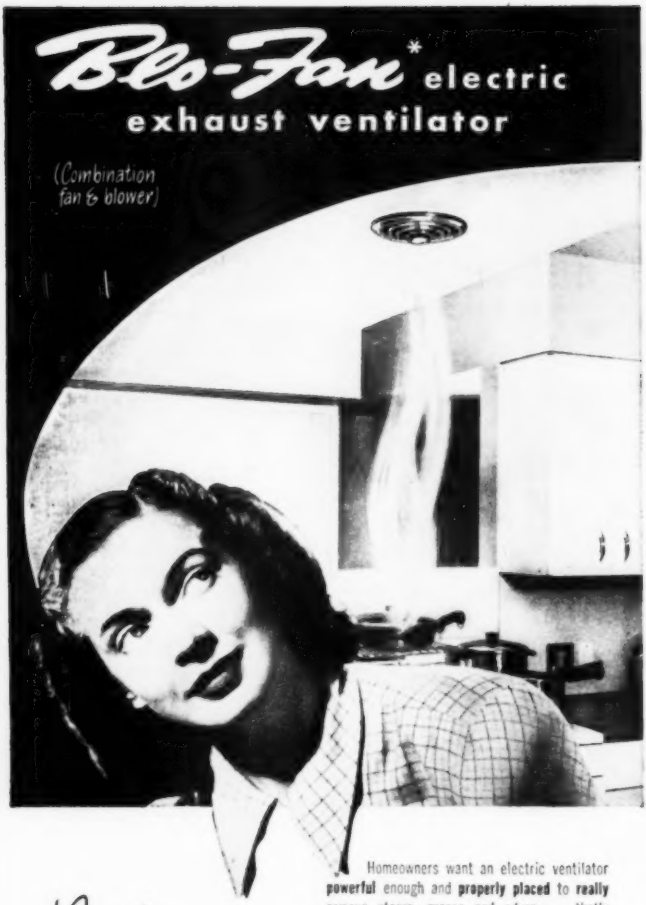
Drawings from "Paint Power" by Lonore Kent, Pratt & Lambert "Specification Manual," 7th Ed., Pittsburgh Plate Glass Co.



12 **Ways of treating a room with sloping ceiling section: (A)** sloping section made less apparent by painting ceiling, lower wall and sloping area alike, with end wall in a lighter value and the right wall in a contrasting hue; **(B)** ceiling and right wall in one color and the rest of the wall area in a dark value; **(C)** awning or canopy effect; **(D)** unity achieved by painting ceiling, sloping wall and end walls dark; **(E)** dormer recesses concealed by painting them the same color as surrounding walls.

Blo-Fan* electric exhaust ventilator

(Combination fan & blower)



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THE ARCHITECT MAKES LIFE EASIER FOR THE HOUSEWIFE

Design considerations in specifying equipment for a home fall broadly into two categories—the first naturally has to do with cost, ease of installation and other mechanical problems of construction; the second deals with appearance, utility and functional features of the equipment.

This discussion is concerned with the second category as it relates to recessed lighting fixtures, ventilating fans and recessed electric wall heaters. As examples, the products of Pryne and Company, of Pomona, California, will serve ideally for purposes of illustration. Pryne products are Pry-Lite recessed lights, Blo-Fan electric exhaust ventilators and Glo-master infra-red wall heaters. These appliances have one important feature in common—they are exceptionally easy to clean. This and other features are better explained by the pictures and captions which follow:

A single Pry-Lite provides ample illumination for this dressing room. Added spaciousness and unbroken ceiling add charm and attractiveness.

"Snap-up" fronts make Pry-Lites the easiest-to-clean recessed fixtures available. Whether installed in the ceiling or in a soffit cabinet, as shown here, the fronts merely pull down for dusting or relamping.

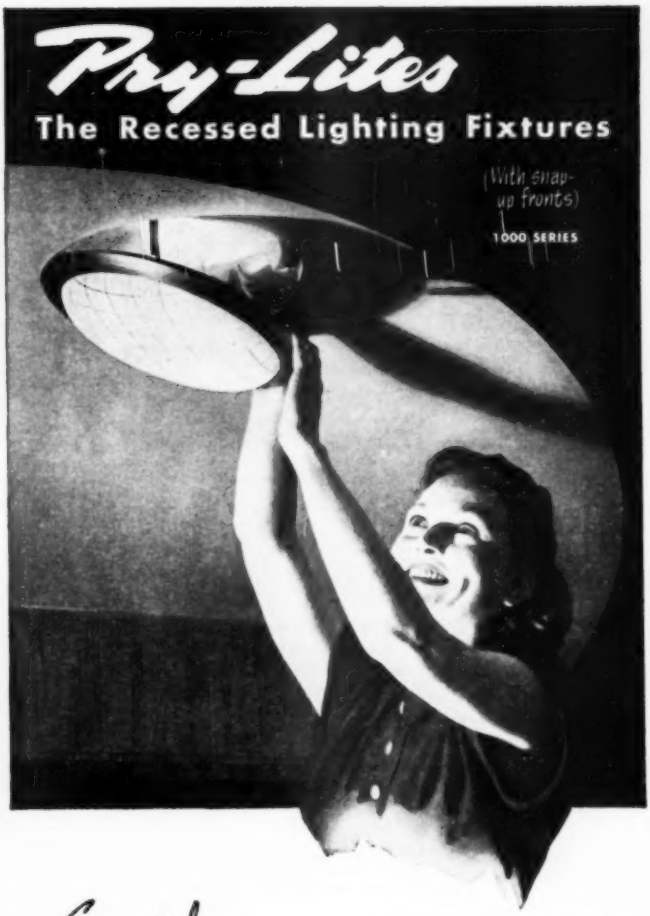
The Glomaster infra-red recessed wall heater radiates penetrating heat from head to toe with absolute safety. There are no flames to ignite towels or clothing.

The attractive Glomaster grille merely snaps out for cleaning. It takes only seconds for this easy chore. There are no bolts or screws to remove.

To clean the Blo-Fan electric exhaust ventilator, you simply loosen one part by hand, and the grille and motor assembly are easily removed. Washing with soap and water cuts all grease off the parts.

Pry-Lites

The Recessed Lighting Fixtures



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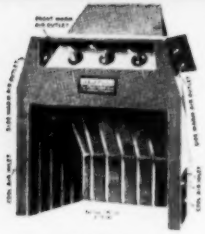
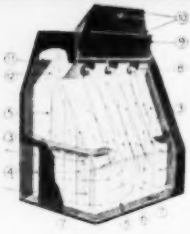


(FRONT VIEW)



(REAR & SIDE VIEW)

HEATFORM Model "A"

HEATFORM is a double-walled metal unit (hearth to flue) around which anyone can easily build the masonry to complete a fireplace of any design.

HEATFORM air chambers capture and circulate through the home a large amount of heat lost up the chimney by the old-fashioned fireplace.

HEATFORM adds but little to the total cost of the finished fireplace. It consists of the firebox, throat, smoke dome and properly located damper, and thus saves labor and material.

LOOK FOR THESE EXCLUSIVE FEATURES

- Corrugated reinforced firebox
- Heating chambers around firebox, upper front and sides of throat
- Round super-heating air passages across the throat
- Large cool air inlets and warm air outlets
- Sloping rear outer lining permitting masonry downdraft shelf to protect the metal from rust.

THE ABOVE ILLUSTRATION SHOWS REAR AND SIDE VIEW OF HEATFORM Model "A" with outer lining removed. Arrows demonstrate air circulation through heating chambers and contact of air to all heating surfaces. NOTE key below to numbers on cut:

3. Baffle plates direct air to the rear heating chamber over the hottest metal.
4. Large air inlets at floor level.
5. Corrugated ribs in boiler-plate firebox provide much greater strength than flat metal.
6. Location of rear cool air inlet.
7. Bottom view of air heating chambers.
8. Superheating air passages through the throat.
9. Damper has understung poker friction control.
10. Smoke dome.
11. Side air passages from lower to upper heating chamber.
12. Inner lining of the throat.

**HEATFORM is the registered trade mark of Superior Fireplace Company.*

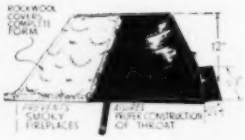
HEATFORM MODEL "S"
(shown at left)

Corner fireplace with right or left side open. Has all the features of Model "A," plus wider view of the fire.

HEATFORM MODEL "M"
(not shown)

Both sides open, otherwise the same as Model "S."

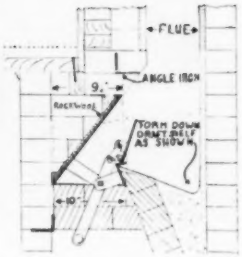
Special fabricated lintel angle bars and corner posts and custom-built drape screens are available for all models and sizes of HEATFORM.



SUPERIOR FORM DAMPER
(Model "L")
—for the conventional fireplace

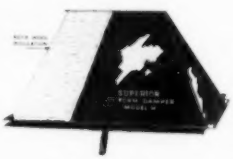
Where the extra heat produced by **HEATFORM** is not a prime factor, but to eliminate faulty construction of the most important part of the fireplace (the throat) we offer you **SUPERIOR Form Dampers.** They save their cost in labor. No forms to build, bricks to cut, or throat to plaster.

The damper is pivoted at the proper point and swings backward to an open position, preventing downdraft wind currents from entering the throat, assuring a perfect draft with NO SMOKE TROUBLES.



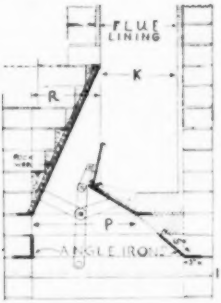
The form and all parts of the Superior Form Damper are constructed of heavy plate steel for lifetime service. No brittle cast iron parts to break in shipping, handling or usage. The use of the blanket of rockwool, provided with each unit, is the only proven method of absorbing expansion of the metal to prevent cracking of masonry.

SUPERIOR HI-FORM DAMPER MODEL "H"
—for the modern fireplace



(FRONT VIEW)

(REAR VIEW)



SECTION FIREPLACE OPENING INTO TWO ROOMS

Where the extra heat produced by HEATFORM is not important, we offer Superior Hi-Form, Model "H" Damper, especially designed for modern fireplaces using a single smoke flue; such as a fireplace with the front and one or two sides open; a fireplace opening through between two rooms; or a four-way opening fireplace supported by a masonry pilaster at each corner. The Superior Hi-Form Damper is the only design damper we can conscientiously recommend for the modern fireplace.

Superior Form Dampers specified by leading Western architects, engineers and builders for the past 27 years to the satisfaction of everyone concerned.

DEPT. AB-523
1708 E. 15th St.
LOS ANGELES 21, CALIF.

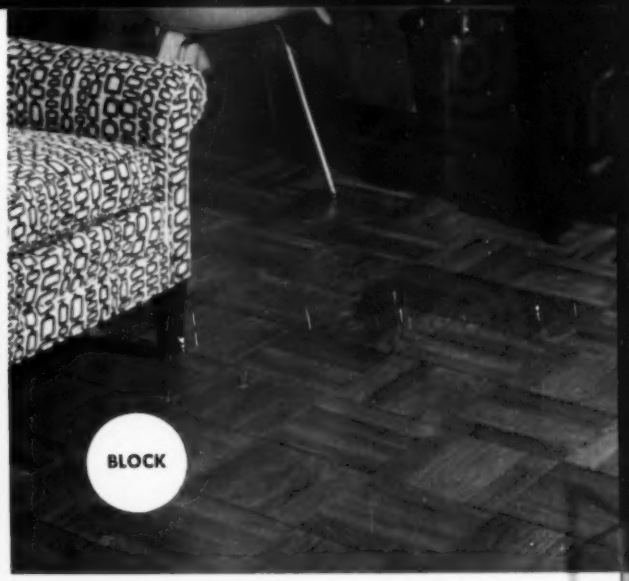
SUPERIOR FIREPLACE CO.

DEPT. AB-523
601 North Point Road
BALTIMORE 6, MARYLAND

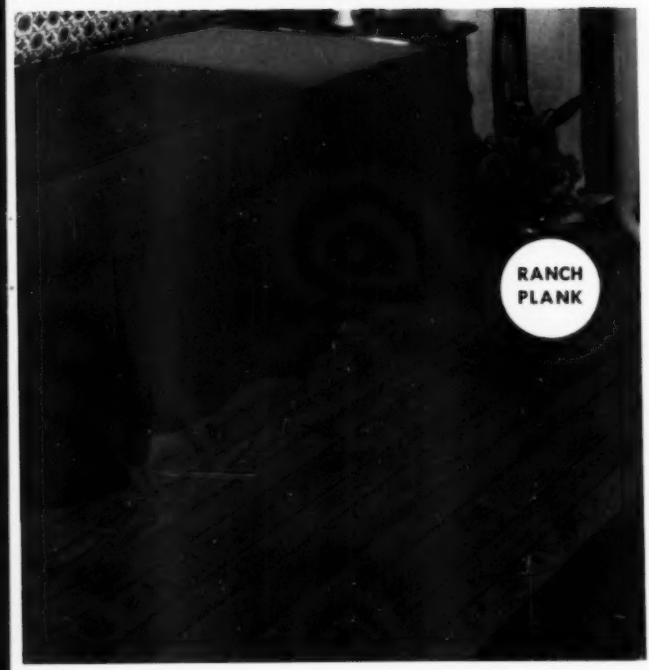
OUR EAST AND WEST COAST FACTORIES MAKE THIS MERCHANDISE QUICKLY AVAILABLE THROUGH BUILDING SUPPLY AND LUMBER DEALERS EVERYWHERE

PIONEER DESIGNERS AND MANUFACTURERS OF THE MOST EFFICIENT AND DURABLE LINE OF HEAT CIRCULATING FIREPLACE UNITS AND FORM DAMPERS

PHOTOS BY HEDRICH-BLESSING



Take your choice ...or take all three!



▪ Today you can give home owners delightful variety along with the charm, beauty and other well-known advantages of Bruce Hardwood Floors.

Distinctive Bruce Blocks are ideal for modern as well as formal styles, and can be installed directly over concrete or wood subfloors. The new, glamorous Ranch Plank Floor (with alternate widths and walnut pegs) is perfect for rambling, informal homes in all price ranges. Then, of course, a Bruce Strip Floor is in good taste in any setting.

For a beautiful decorative effect at reasonable cost, use two or three types of Bruce floors in the same home. Specify "prefinished" to get the famous Bruce penetrating finish . . . and to save time and money on the job.

See our catalog in Sweet's and write us for booklets with color photos of Bruce Hardwood Floors.

Bruce

HARDWOOD FLOORS

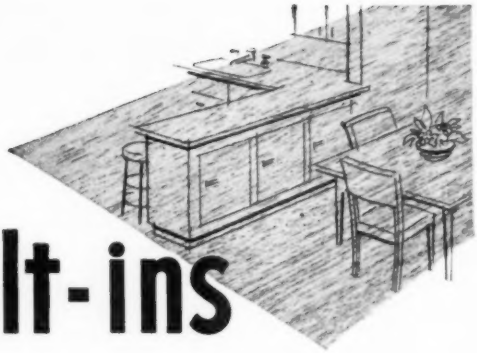
PRODUCT OF E. L. BRUCE CO., MEMPHIS 1, TENN.

BRUCE *World's largest maker of hardwood floors*

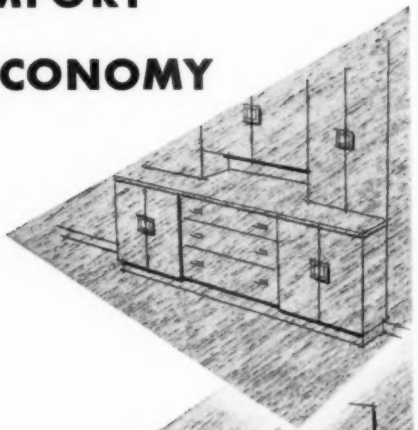
Easily Installed

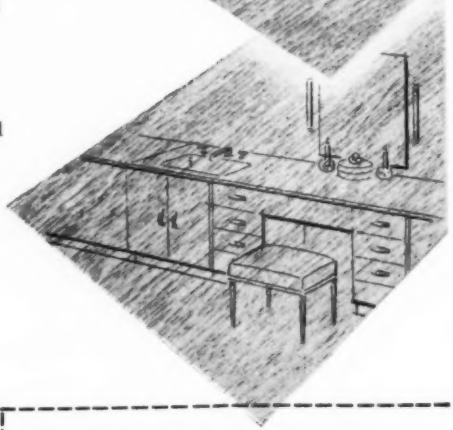
micarta® built-ins

PLASTIC SURFACE



Sell BIG HOME COMFORT
Plus SMALL HOME ECONOMY





Show a home prospect a built-in breakfast bar, china cabinet or vanity and watch his interest rise. If it's constructed of MICARTA®, you have a sales talk about lifetime beauty that withstands scuffing, burning, denting, scarring or chipping. Such features can change a "For Sale" sign into a "Sold" sign. Why? Because you have provided the answer that gives small home economy plus the quality and comfort of a much larger home.

You'll find MICARTA pre-bonded to plywood panels easy to work with and available in practical economical sizes. When planning your next home or your next development, investigate the advantages of using MICARTA laminated plastic surfaces throughout the interiors. There are patterns and decorator colors to match any application.

J-06498

Westinghouse

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55 West 44th Street, New York 36, N. Y.

Please send full information on your MICARTA Dealer Plan.

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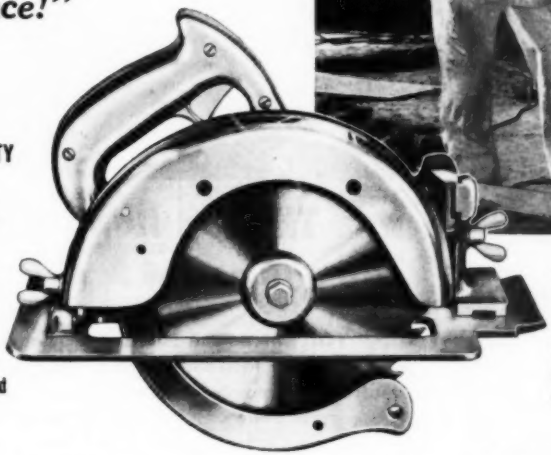
AB-10-52

"Black & Decker Saws can't be beat!"

says Foreman Joe Solko, Harris Construction Co., Fresno, California.

Construction company uses 21 B&D Saws "because they're fast and safe and require very little maintenance!"

Cutting wood with an 8" Black & Decker Saw on the job site at Yosemite Junior High School, Fresno, Calif. In addition, B&D Drills and Hammers help speed the job for Harris Construction Company.



COMPLETE SAFETY IS BUILT-INTO EVERY BLACK & DECKER SAW!

- **Instant-release trigger switch**
- **Perfect balance**
- **Telescoping guard**

For speedy, accurate, safe sawing on *your* jobs, follow the lead of construction men everywhere who're switching to Black & Decker power. At the Harris Construction Company, for example, 21 B&D saws have been in use for the past year, working 8 hours a day, day after day. Foreman and superintendent agree: "Black & Decker saws can't be beat!"

Check these features for yourself: Special B&D-built universal motor for abundant power. Cutting depth and bevel angle quickly adjustable. Foolproof telescoping guard and instant-release trigger switch for complete safety. Husky gears and housings! Available in 6" and 8" models. See your nearby B&D Utility Dealer for a free demonstration. For complete catalog, write: The Black & Decker Mfg. Co., Dept. 663, Towson 4, Maryland.

New B & D Utility No. 44 Sander ($46.95) is a real *finish* sander that requires no final hand sanding! Gives satin-smooth finish ten times faster than by hand. Light weight, easy to use, many *exclusive* features!

Black & Decker

UTILITY TOOLS

PORTABLE ELECTRIC TOOLS

RESIDENCES, APARTMENTS, MOTELS, STORE BUILDINGS

ZONED FOR COMFORT

In beautiful modern homes like this, Thrush zoning provides controlled comfort at low cost.

Buildings may be zoned so that each apartment has individual control of temperature from a single boiler.

Zoning reduces operating costs for Motels.

JUST THESE SIMPLE UNITS NEEDED FOR EACH ZONE . . . a Thrush Water Circulator, a Thrush Radiant Heat Control (with Relay Transformer) and a Thrush Flow Control Valve.

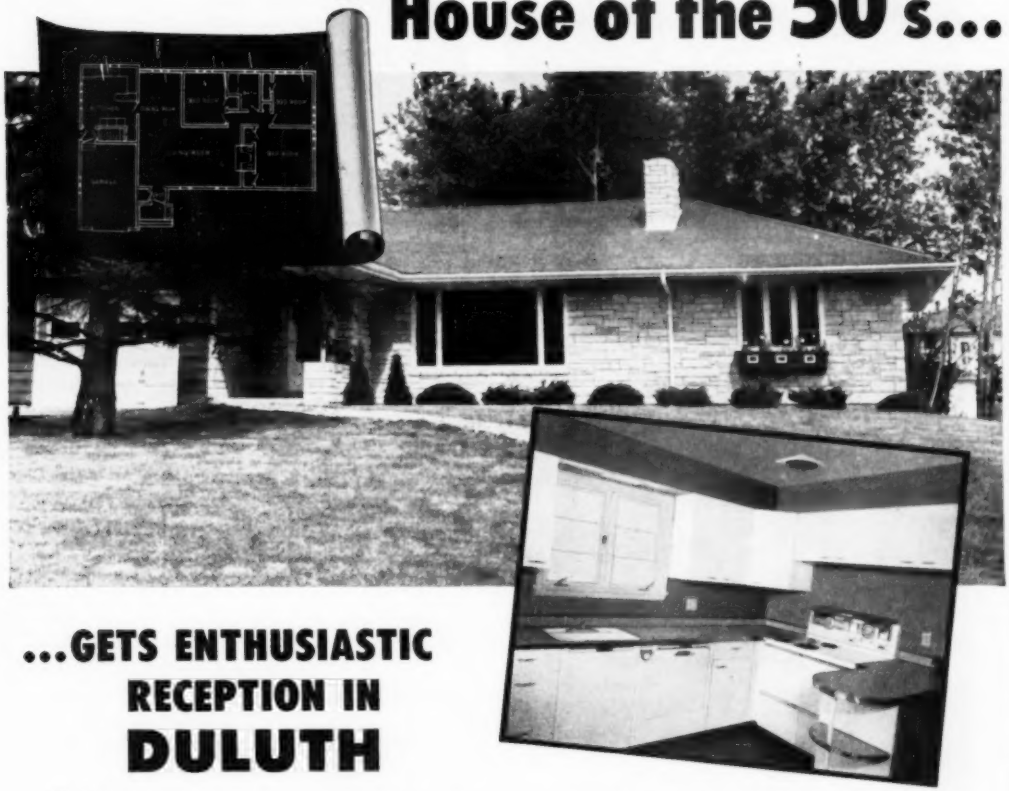
WITH THRUSH FLOW CONTROL SYSTEM OF HOT WATER HEAT

YOU CAN install low cost Radiant Hot Water Heat in every type of modern building and provide the greatest comfort with complete control of temperatures. Best of all, it is easy to zone any building or group of buildings with Thrush Flow Control System of Hot Water Heat, using a single boiler. This method provides individual heat control in each building, apartment or area of a home. It is ideal for use with radiant coils, radiant baseboards, radiators or convectors. For more information see our catalog in Sweet's or write Department G-10.

H. A. THRUSH & COMPANY

PERU • INDIANA

The Hotpoint House of the 50's...



...GETS ENTHUSIASTIC RECEPTION IN DULUTH

In Duluth, Minnesota, the most recently erected Hotpoint House of the 50's was opened for inspection with wide public acclaim. As was the case with all other Hotpoint Houses across the nation, the Duluth house created an entirely new appreciation of the wonders of modern electrical living. In addition, it demonstrated how builders and manufacturers of home equipment can team up in a practical promotion to reach prospective home buyers in mass proportions.

Over fifteen thousand visitors inspected the home during "open-house." A completely coordinated advertising and publicity program gave the house maximum exposure. And, of course, Kenneth A. Johnson, the designer and general contractor, came in for a full share of the favorable publicity.

Approximately 30 supplying companies participated in making this Duluth's most completely modern, electrified home. It is truly the wonder home of the decade. New uses for electricity are dramatically displayed and Duluth's citizenry now know the real meaning of "electrical living."

This and other Hotpoint Houses of the 50's being erected throughout America, as a national activity, are being sponsored by Hotpoint Co. They are being activated locally by distributors, builders, the electric utility company, and suppliers. More and more Hotpoint Houses of the 50's are to be built. Their object is to set the pace for better living in the communities in which they are built, and to influence the public to buy or build better homes completely equipped and completely electrified.

If you are interested in learning of the builder advantages in a Hotpoint House of the 50's project in your community, write the Builders Division, Hotpoint Co., 5600 West Taylor Street, Chicago 44, Illinois.

Hotpoint Co.

(A Division of General Electric Company)
5600 West Taylor Street, Chicago 44, Illinois

RANGES • REFRIGERATORS • DISHWASHERS • DISPOSALLS® • WATER HEATERS • FREEZERS • AUTOMATIC WASHERS • CLOTHES DRYERS • ROTARY IRONERS • CABINETS

BEFORE Garage fronted on town's busiest street, hid company from view

Remodeled Garage Converted to Modern Sales Room

LOCATION:
Osceola, Indiana

ARCHITECT:
Paul F. Jeregan, Mishawaka, Indiana

SEIRIVING for a greater volume of small cash sales, Henderson and Mock, Inc., Osceola, Indiana lumber dealers, decided that a store on a main street was needed.

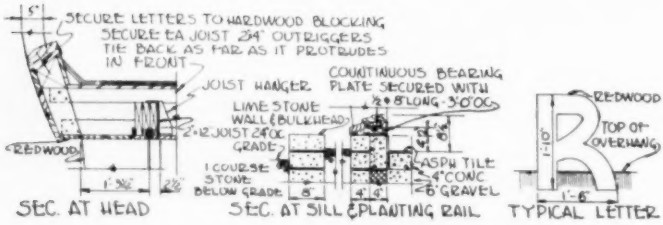
Their yard office and showroom were hidden from the town's busiest street by a garage. They acquired the structure and remodeled it. Today, they have a good location, a greater display area, and plenty of parking space. Consequently, walk-in sales and impulse buying are on the up-swing.

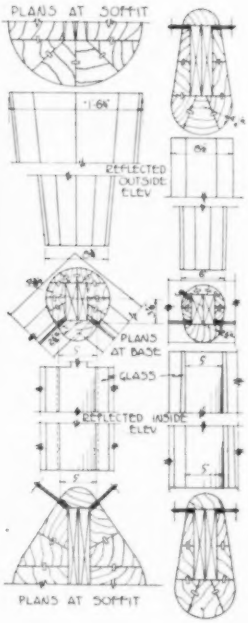
The front of the garage was removed and 12 feet were added. The lumber dealer's mill operation produced an attractive redwood front. The redwood muntins, overhang, and canopy and company name frame a large expanse of plate glass.

The 1,000 square foot display space at the front accommodates windows, doors, refrigerators, freezers, stoves, and kitchen cabinets. Island displays, storage shelves, and sales counter utilize 1,248 square feet of floor space. Offices, estimating room, and sales work space take an additional 1,000 square feet.

Added to the rear of the original structure is a 2,400 square foot stockroom. Hardware, millwork, and paint are stored there.

AFTER Attractive "show case" front made in concern's own mill transformed the garage into a modern showroom

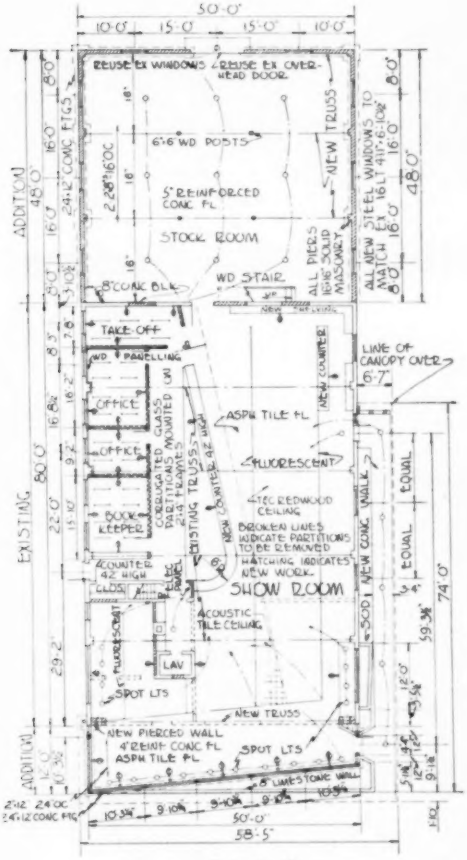




Details of the unusual window and cornice

Island displays and storage shelves for hardware and paint

Samples play prominent part in display of materials

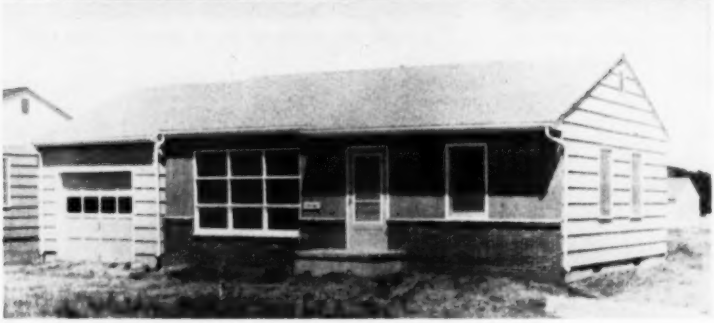


PLAN

New additions plus remodeling gave the dealer a 50x140 foot lumber office, showroom, and stock room

Large 18x50 foot area displays appliances and doors

Metal and wood kitchen cabinets are combined in a display



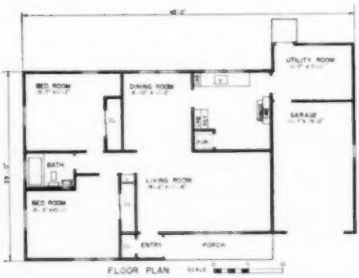
A house of any size can be produced by factory-built modular sections. (Top) The success which Jim Bradfield had with homes like this, built to individual buyers' specifications, led him into speculative building of houses like the one at left. This is the 864 square-foot house Bradfield sells for $11,500

How a Kansas Builder Won Success

Instead of buying materials on a quantity list basis, Jim Bradfield of Emporia sends his plans to the Wadsworth Homes factory in Kansas City, receives back the needed materials in made-up sections built conventionally and ready for rapid assembly at the site

In the past five years, Jim Bradfield has pioneered a new system of home building in the city of Emporia, Kansas.

As a lumber dealer, in Olpe, Kansas, Bradfield was impressed by the idea that is being developed by Wadsworth Homes. This company is turning out building materials in prebuilt sections designed on modular principles. By coordinating the materials needed for any given house



Built originally as a single lot fill-in, this model sells in a Bradfield project for $13,800 with fireplace, or $13,000 without fireplace. It has 1024 square feet

A Bradfield crew starts the erection of Wadsworth modular wall sections

Airplane-type roof trusses are spaced 24-in. on center

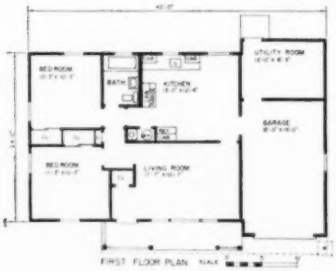
Plywood sheating on sections is engineered to overlap level of the finished floor, providing a weather-tight seal

by Using Modular Materials

plan into 2-foot and 4-foot multiples, with special panels for extra-wide windows and doors, the Wadsworth factory at 2949 Chrysler Road, Kansas City, has been producing pre-built sections for homes of all sizes and price brackets.

Builders using the Wadsworth system claim that by using these pre-built sections, a builder can erect more houses, deliver them sooner and eliminate much of the materials waste that eats into profits. Also stressed is the "custom-built" aspect of the operation. Any plan can be reduced by Wadsworth architects to modular sections and produced that way in the factory.

Bradfield saw the logic in the Wadsworth approach and determined to test it. He made plans to build two moderate priced houses the Wadsworth way in Olpe, and secured conventional financing through the Kansas Savings and Loan Association. While he was building his foundations, the walls, roof and other parts of the building were being built in the Wadsworth plant. When these modular sections were delivered to the site, windows were in place, doors hung, roof trusses accurately built, floor joists, sills, plates cut to exact measurement, and the entire structure ready for erection. Roof sheathing and exterior trim required



One of the first models used by Bradfield in project building. 816 square feet of living space for $10,500

The "Wee Wadsworth" playhouse is 6 by 8 by 5½-feet, has a picture window, electric wiring, engraved brass knocker on door. When used as an advertising device for a project, the Wadsworth company supplies the builder with a sign which goes across roof and carries his name in large letters. The sign is free. The house is sold at retail for around $300

little or no trimming.

Rough-in of the houses was completed in short order. Bradfield finished one and allowed the second to stand in the rough as a display of the quality materials used. "People want to see just what goes into the house they buy," he was convinced. This conviction paid off, for both houses sold immediately and Bradfield found himself with contracts for several more.

Bradfield's cost breakdown on a house selling for $11,500 looks like this:

Lot (FHA value)	$ 900
Excavation and foundation	400
Wadsworth modular materials	4,300
Plumbing	800
Rheem forced air gas furnace	485
Wiring and fixtures	220
Brick veneer	200
Interior	585
Labor	1,300
Drives, guttering	180

Things went so well in Olpe that Bradfield decided to take the Wadsworth idea to Emporia. The first houses he built in Emporia were built to the buyer's individual specifications, as had been the case in Olpe; but the readiness with which people accepted homes built in this way soon convinced Bradfield that speculative building with Wadsworth modular materials could be profitable.

Speedy Construction Gives Sales Advantage

His first project in Emporia was a small one aimed at the $12,000 level, using Wadsworth designs and backed by the Savings and Loan Association financing. The houses sold quickly, and one of the things Bradfield liked most about the operation was the sales advantage which speed of construction gave over competition. As Bradfield himself describes this:

"The loan structure under which most houses are built is set up to delay the first payment by the buyer until six months from the time the house is begun. By using modular methods, which cut down the time of construction, I'm able to offer buyers the equivalent of three months rent. That's an important advantage to them, particularly with today's high costs of moving, closing, and all the expenses that go with the new house."

Bradfield crews can usually rough in a house in two days, and completion time for a job, from start to finish, is about three months.

The Wee Wadsworth Helps

Bradfield does a year-round merchandising campiagn, stressing the quality materials of the Wadsworth sections. All Bradfield projects are dramatically identified by a "Wee Wadsworth." This is an attractive child's playhouse which the Wadsworth company has developed as a promotional idea. The Wee Wadsworth has proved to be highly effective and is sold for around $300 by leading department stores and builders. It is used as a trade symbol in the Wadsworth company's newspaper advertising campaigns, and as an unusual sign for Wadsworth-built projects.

As a spring promotion venture this year, Bradfield gave away one of these Wee Wadsworths in a Valentine's Day stunt for which he secured the cooperation of practically every store in Emporia. The Wee Wadsworth was displayed in front of the Emporia City Hall for a short time and the interest in it was tremendous.

In addition to Emporia's Bradfield Better Built Homes Co. the Wee Wadsworth is drawing attention to Wadsworth builders in 245 cities in the Middle West. A fleet of trucks each day brings modular sections from the Wadsworth factory to these points-of-sale.

In his plans for the future, Jim Bradfield is looking toward the farm market. He feels that modular materials give the builder a chance to perform a real service for the farmer, "because materials made up in this way put the cost of an efficient, high quality farm home within the reach of every farmer."

Bradfield keeps up a year-round merchandising campaign

Here's your answer to the burning question.....

Certain-teed

WEATHER-SHIELD

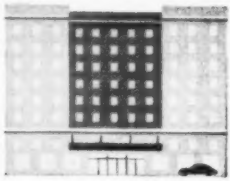
WATER-REPELLENT

GYPSUM SHEATHING

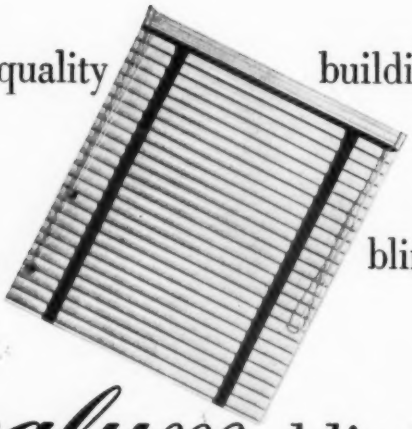
FIREPROOF

CERTAIN-TEED PRODUCTS CORPORATION · ARDMORE, PENNSYLVANIA

whatever you build... whether it's a school

...a hospital ...a hotel 

a home... a top-quality building,

deserves the top-quality venetian  blind!

the all-*Flexalum*® blind

At last . . . a venetian blind that gives you positive assurance of lasting quality and precision operation. Every part of the all-Flexalum blind has been designed specifically to meet your building needs: to give you easy upkeep, longer wear, fool-proof operation, lowest maintenance costs.

Flexalum tapes, cords and tassels are re-inforced plastic . . . easy to clean, durable, decorative. They won't fade, fray, shrink or stretch.

Flexalum slats are spring-tempered aluminum . . . always keep their shape, won't rust, chip, crack or peel. **Flexalum mechanism** is friction-free, permanently lubricated, fool-proof.

Greater versatility — cords can be placed where most convenient. Head-rail can be extended to accommodate draperies without extra hardware.

Write for name of Flexalum manufacturer nearest you and complete file of venetian blind information: color guides, specification data, detailed scale drawings showing installation requirements and conditions.

Hunter Douglas Corporation Dept. B, 150 Broadway, New York 38, N. Y. In Canada: Hunter Douglas, Ltd., Montreal, Que.

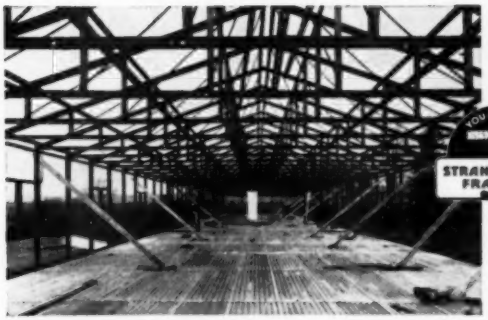
For Roof Systems . . . Floor Joists

Specify Stran-Steel® Framing

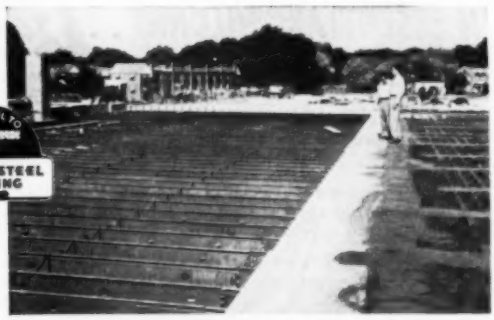
Stran-Steel framing members bring twofold savings when specified for commercial and industrial construction. There's the initial saving of time and money during construction—and the permanent saving over fire hazards. With Stran-Steel roof systems and floor joists, the destructive effects of fire can be reduced to a minimum.

Stran-Steel framing is easily adapted to modern design, has great rigidity, and is precision pre-cut for rapid assembly. The nailable feature of Stran-Steel framing allows a wide choice of collateral materials and speeds building close-in. Interior work can proceed before exterior completion, thus saving delay in sub-trade work.

Write for complete literature and specifications data on Stran-Steel framing; or see Sweet's Architectural or Builders' files.



Non-combustible Stran-Steel framing members were used for exterior walls, interior partitions, roof trusses, and floor joists in New York State Conservation Department building at Sherburne, N. Y.



Virginia Square Shopping Center in Arlington County, Va., uses Stran-Steel joists on the first and second floors and roof. Roof construction includes poured Pyrogyp deck plus built-up roofing.

FREE—Write us today for your file-size copy of our 138-page Architects' Reference Manual. Fully illustrated. Complete engineering tables.

GREAT LAKES STEEL CORPORATION
Stran-Steel Division Ecorse, Detroit 29, Mich.
NATIONAL STEEL CORPORATION

PRODUCER OF NAX HIGH-TENSILE STEEL

CLAY PIPE—*ESSENTIAL • ECONOMICAL • EVERLASTING*

Clay Flue Lining is specified for many essential housing projects serving defense workers. At Grifton, North Carolina, near the DuPont plant, five- and six-room dwellings are being constructed.

IN ESSENTIAL BUILDING . . FLUE LINING IS A MUST

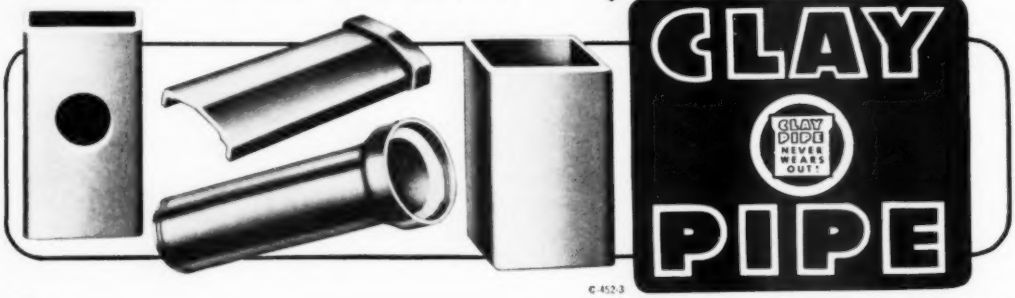
Untold millions of dollars in fire damage are prevented by Clay Flue Lining every year. No wonder it's required for chimney construction in leading cities and in essential building projects such as military installations and defense housing.

Be sure your community follows the lead established in today's *essential* construction work. Include Clay Flue Lining in your specifications.

Clay Flue Lining is unaffected by extremes of temperature. It resists corrosive furnace gases, acid condensation, and flaming embers that cause chimney failures. Its protection is permanent, because *it never wears out.*

NATIONAL CLAY PIPE MANUFACTURERS, INC.
206 Connally Bldg., Atlanta 3, Ga.
100 N. LaSalle St., Rm. 2100, Chicago 2, Ill.
703 Ninth & Hill Bldg., Los Angeles 15, Calif.
311 High Long Bldg., 5 E. Long St., Columbus 15, Ohio

Vitrified



C-452-3

On time?.. You bet! We're using Thor Silver Line Saws!

Cross-cut, rip, bevel . . . every cut goes faster with the new Thor Silver Line Saws. POWER does it — *extra* POWER, heavier duty motor, ball bearing drives, direct gearing, long-shaft blade mounting — dozens of features that add up to hours, days . . . and dollars . . . saved on every job. A free demonstration will convince you. Write "Thor Tools," 175 N. State St., Aurora, Ill.

Thor TOOLS

INDEPENDENT PNEUMATIC TOOL COMPANY

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BUY IT *from your* DISTRIBUTOR

All over the country, in small houses or multi-unit groups like this Mitchel Field, L. I., housing project, you'll see the trend to color and texture stimulated by Color-Grained Siding.

Plus Sales Feature for Color-Grained Siding

Exclusive DUROC® Finish Gives Home Owners Greater Value

Style, beauty, color and texture has made Ruberoid's Color-Grained Siding* a smash hit with home owners and builders after just one year on the market. Now, Ruberoid has added a new improvement to make Color-Grained Siding even more attractive. It's *Duroc*, the exclusive Ruberoid surfacing. *Duroc* adds a lustrous finish that brings out the full beauty of the warm, distinctive colors and highlights the rich texture. It provides an armor-hard protective coating that resists dirt, stain, wear and weather. That's why home owners get greater value, greater economy as well as up-to-date style and beauty when they buy homes sided with Ruberoid's Color-Grained Siding.

Cuts Your Siding Costs

Color-Grained Siding can reduce your siding costs as much as $650 on an average size home. Compare the prices in your area with the cost of ordinary wood siding. You'll be amazed. And you can make a big saving without "cutting corners", because Color-Grained Siding looks like the quality product it is. Full-page, full-color advertising appearing in magazines like the Saturday Evening Post and Good Housekeeping tell your customers the story of beauty, economy, style and color that has made Color-Grained Siding the top favorite of modern siding materials. See your Ruberoid dealer for complete information or Sweet's Catalog, Builder's File 8A/RU. The Ruberoid Co., 500 Fifth Ave., New York 36, N. Y.

*Patent Nos. 2307733, 2307734, others pending

The RUBEROID Co.

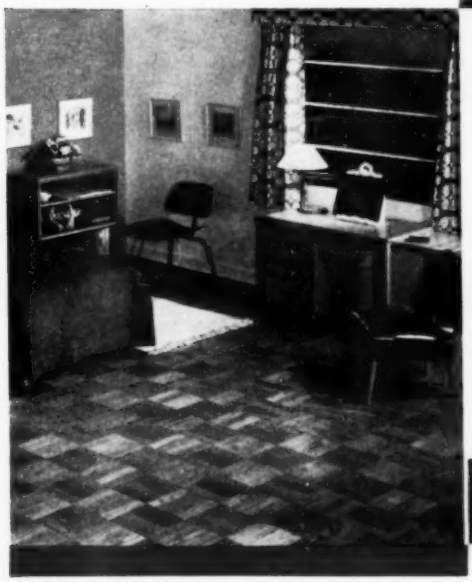
ASPHALT AND ASBESTOS BUILDING MATERIALS

BRADLEY PREFINISHED OAK FLOORS *Give You So Much More!*

. . . Here Are Two Stand-out Reasons:

1. *Straight-line* ripping by specially designed saws, used in processing rough oak for the flooring machines, produces *precisely straight strips.* This exclusive method *eliminates crook,* so that the finished tongue and groove strips draw up *exactly parallel from end to end.* Result: a stress-free, stabilized floor that *stays* mirror-smooth.

In Bradley Unit Block assembly, the straight-line feature assures total integration in matching and splining of component strips.



2. Bradley's penetrating primer, superior transparent finish and heavy-bodied wax are mechanically applied and buffed with precision uniformity. Costing less than sanding and finishing on the job, this formula and method bring the natural figure of oak into clear relief and provide a floor of rich luster and matchless decorative beauty.

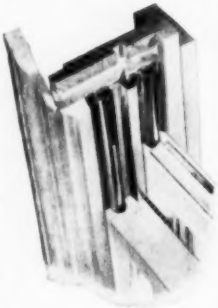
Bradley's premium quality hardwood floors include standard *straight-line* strip and Unit Blocks* in Oak, Beech and Pecan; Random Width Oak Plank; each prefinished or unfinished. For complete specifications see Sweet's Architectural and Builders Catalogs, or write for your file copy.

**For mastic or nail installation.*

BRADLEY

LUMBER COMPANY of Arkansas • WARREN ARKANSAS

BRADLEY BRAND

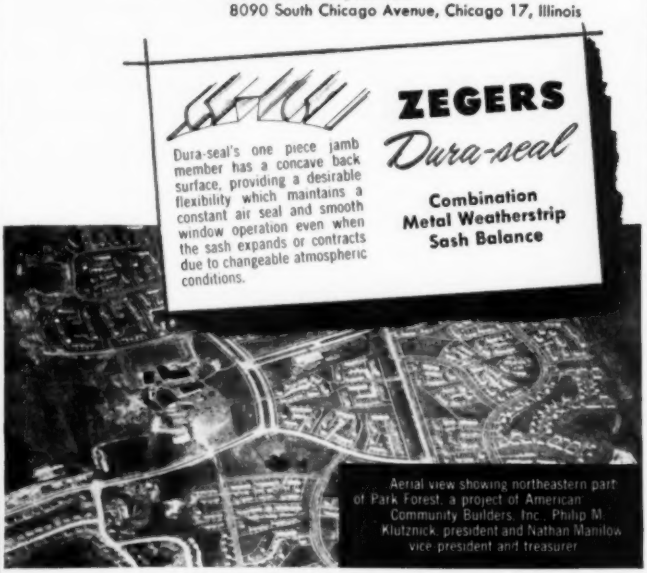


All of the frame homes in the nationally-known Park Forest, Illinois Community Development are equipped with Dura-seal Combination Metal Weatherstrip and Sash Balance. And this important visual feature helps these homes sell themselves!

With Dura-seal, windows open and close easily and smoothly with *finger-tip control*. Four spring balances (enclosed in metal housings) are used in each window to assure true balance. Dura-seal's *complete* weatherstripping saves 20% to 40% in fuel and prevents drafts and dirt from entering. It is cut to the pitch of the sill—providing an attractive and efficient window. It is self-adjusting and assures trouble-free operation for the life of the building!

These are a few of the reasons why Dura-seal is a favorite with thousands of builders and architects. Be sure to look into Dura-seal *now* . . .
see our folder in Sweet's File!

ZEGERS Incorporated
8090 South Chicago Avenue, Chicago 17, Illinois



Aerial view showing northeastern part of Park Forest, a project of American Community Builders, Inc., Philip M. Klutznick, president and Nathan Manilow vice-president and treasurer

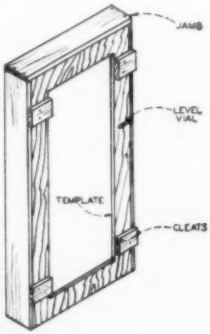
No. D-95 Fireplace

In its original setting, the fireplace and the extended brick wall adjoining, which are detailed on the opposite page, form one wall of the living room and a portion of the kitchen wall on opposite side. There is a measure of economy in this arrangement, for with the heater room located directly below in the basement, all vents and flues are extended upward in the area alongside the fireplace opening.

Design of the fireplace wall and opening follow along contemporary lines, with the fireplace area open on two sides. A 2-inch diameter pipe column forms the support at corner for the brickwork above. The raised reinforced concrete hearth cantilevers into the room approximately 20 inches, providing space below for the storage of logs.

Note the position of ash dump which is located in the corner instead of the center of the fireplace area. It is assumed that its position will dictate where the fire is to be built to avoid possibility of smoking due to the open end.

A curtain type of fireplace screen covers the opening, front and side. All the exposed brickwork is laid up with Roman brick with a pattern arrangement at corner. Chrome metal edge is provided around top of fireplace opening.



Door Jamb Setting

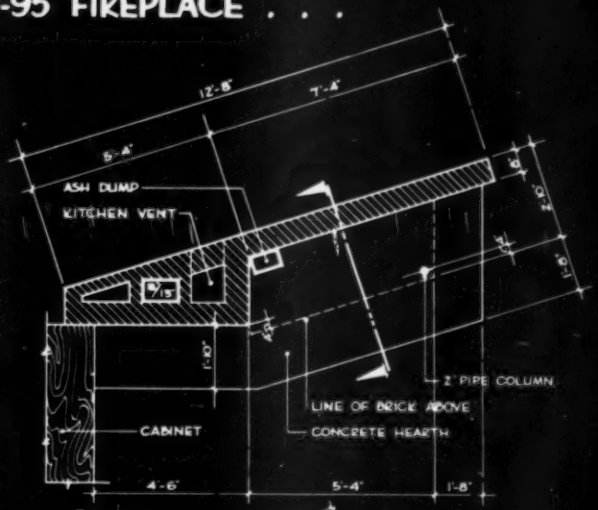
This makes for a quick installation and setting of door jambs where more than one door of the same size is involved.

Cut out a template of plywood. Attach a level vial to the surface of the plywood. Fit the jamb to the template and slip in place. It is not necessary to use a straight-edge or to plumb each side. Time of an installation was cut 30 per cent. — Orville Habeck, Fargo, N. Dak.

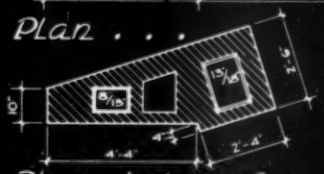
AMERICAN BUILDER'S BETTER DETAIL PLATE

Detailed by K. Roderick O'Neal A.I.A. for *American Builder*

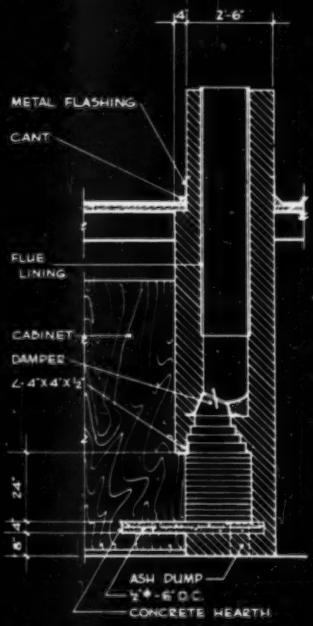
NO. D-95 FIREPLACE . . .



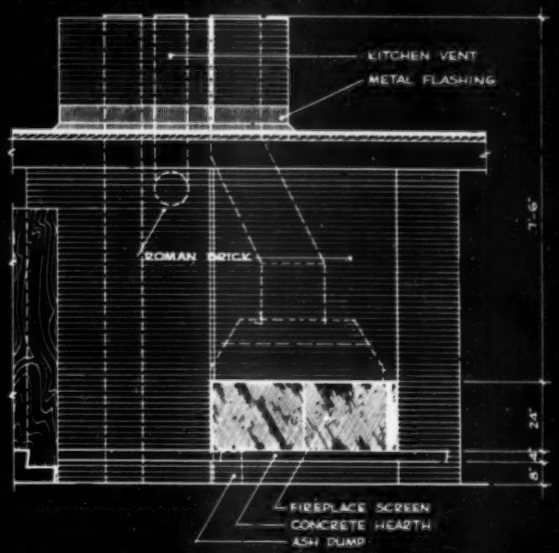
Plan . . .



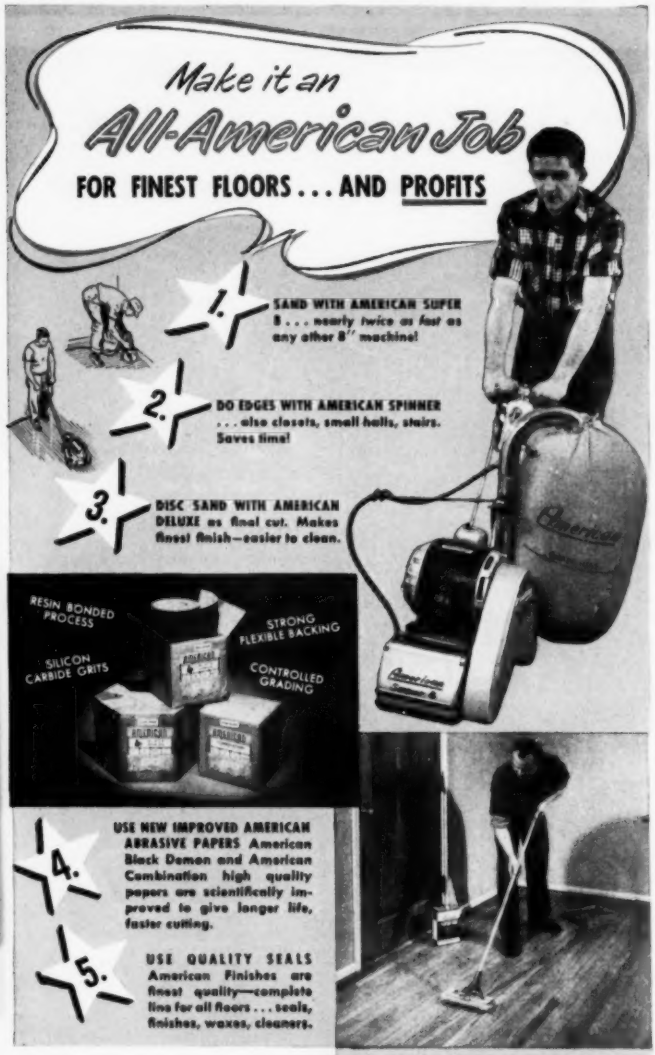
Plan above roof . . .



Section . . .



Elevation . . .



Save labor—and produce better floors from start to finish—with an All-American line-up of machines and materials on the job! Depend on American Machines and Abrasives to put a beautiful, super-smooth surface on floors with rapid and efficient sanding, steel wooling and polishing. For the right finish for any floor—specify American quality finishes and cleaning materials . . . a complete line for wood, cork, concrete, terrazzo, asphalt, rubber, linoleum or plastic. For all-around satisfaction and *profits* . . . make it an All-American job! Send for latest catalogs.

AMERICAN

FLOOR MACHINES • PORTABLE TOOLS

The American Floor Surfacing Machine Co., 511 So. St. Clair St., Toledo 3, Ohio

Please send latest catalog on the following, without obligation:

☐ Floor Sanders ☐ Floor Edgers
☐ Floor Maintenance Machine
☐ Floor Finishes ☐ Abrasive Paper

Name.....

Street.....

City.....State .....

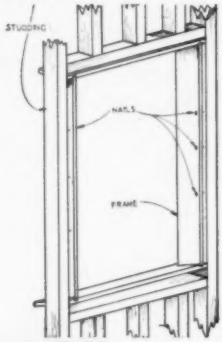
No. N-36 Store Front and Canopy

The interesting feature of the store front shown on opposite page is the manner in which the display sign and canopy is integrated in, and becomes a part of the over-all design of the building.

The canopy, faced with porcelain enamel, extends completely around the front and part of the return wall of building, with a perforated pier of the same material forming the terminus at either end. These piers extend upward at an angle with the plate glass show windows following the same profile. The sign above canopy at the extreme end of the front, follows the profile of pier, thus making it appear as a part of the building design.

The porcelain enamel is installed in sections secured to wood sheathing with metal clips. Piers are framed with 2x4's over which is placed 1x6 inch D&M boards. Canopy is also framed in wood. Canopy decking is 1x6 inch D&M covered with sheet metal.

Standard store front trim is used throughout. White metal is used to cover built-up wood members, such as the transom bar, etc. The door is thick tempered glass with a white metal frame. Other glass is ¼-inch polished plate. Spotlights placed flush with plaster ceiling are installed at regular intervals just inside of show windows for night time illumination.



How to Hold Window Frames Plumb

Often times when walls are plastered the jambs of window frames are pushed out of line. Carpenters must remove plaster and plumb sides to properly install trim.

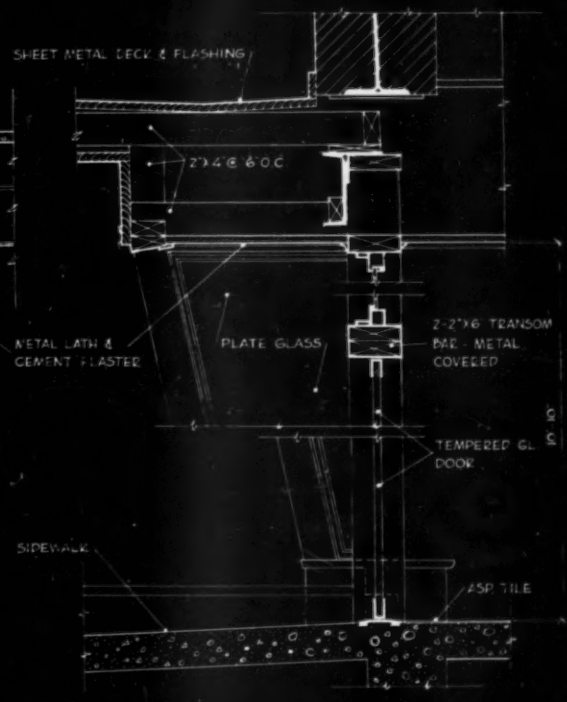
When frames are set, three nails on each jamb as shown in drawing will hold frame plumb.—R. B. Fluharty, Boonton, N.J.

AMERICAN BUILDER'S STORE FRONT DETAILS

Designed by Sidney C. Fink, A.I.A., Chicago, Ill. Detailed by K. Roderick O'Neal A.I.A. for *American Builder*

NO. G-36 STORE FRONT & CANOPY . . .

Section Thru Front Wall

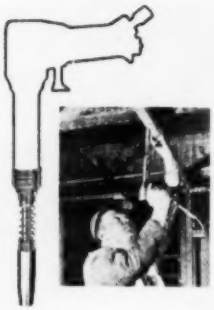


Section Thru Entrance

NEW PRODUCTS

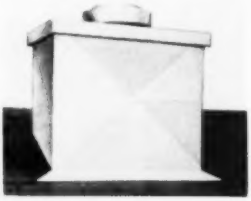
Offered by Manufacturers

CIRCULAR SAW SHARPENER AB105206
Sharpening and setting of circular saws as well as sharpening of planer and jointer knives, hand plane irons, wood chisels, and other cutting tools can be done on the "Sharp-Smith" machine. The unit will joint, gum, bevel grind, and set all popular types of circular saws from four to 48 inches in diameter. In addition, it will sharpen planer and jointer knives up to 24 inches in length. Positive settings speed the sharpening operation. No experience is necessary to operate. Belsaw Machinery Co., Dept. AB, 315 Westport Rd., Kansas City, Mo.



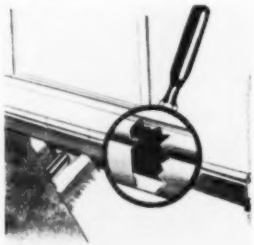
NAILING TOOL AB105204
A semi-automatic nailing tool attaches to any pneumatic hammer with a No. 2 Morse taper and drives six to 16 penny common nails. Only six inches long and weighing one pound, the unit consists of four parts, two of them moving. The nail is fed head first into the muzzle of the nailer and driven by rapid blows of an alloy steel plunger when the trigger is pulled. The manufacturer claims the tool reduces operator fatigue on overhead nailing jobs and reduces time on any job. Fox Nailer Corp., Dept. AB, 3706 Airport Way, Seattle 4, Wash.

VENTILATING SIDE LIGHTS AB105218
The front door no longer needs to be a ventilating device as these sidelight ventilating units can be installed at either or both sides of the door. The manufacturer believes these units are the answer to the front door problem. No longer does the beauty of a front door need to be hidden. The units provide an unobstructed view to the outside as well as providing summer ventilation. All material is preservative treated. Hardware and weather stripping are included. Farley and Loetscher Mfg. Co., Dept. AB, Dubuque, Iowa.



PREFABRICATED CHIMNEY HOUSING AB105231
Designed to harmonize with the architectural lines of larger and more elaborate ranch houses and buildings, this housing for Vitro-liner prefabricated chimneys requires no other maintenance than occasional painting. The rain cap and round baffle plate are welded into a single unit, protecting the chimney from back-draft as well as rain and weather. The flashing and flue housing are made to fit the individual chimney, eliminating on-the-job cutting and fitting. Offering considerable flexibility of design to the architect, these units save useful floor space, and can be located anywhere in the house. They are listed by Underwriters Laboratories for all fuels in one or two-story houses and buildings. Condensation Engineering Corp., Dept. AB, 3511 W. Potomac Ave., Chicago 51, Ill.

INTERCHANGEABLE FURNACES AB105221
Interchangeable winter air conditioning units give to the home owner an option of changing from oil to gas or gas to oil fuels. The units range in capacity from 80,000 to 125,000 B.T.U.'s. The oil-fired unit incorporates a flange-mounted pressure atomizing gun-type burner, while the gas-fired unit is equipped with a single port, fountain-type, gas burner. Burners are mounted on a single plate allowing easy access for installation and servicing. The furnaces are 26 inches wide, 54 inches long, and 52 inches high. The J. L. Gillen Co., Dept. AB, 12202 Wormer Ave., Detroit 28, Mich.



PERIMETER HEATING AB105226
Similar in appearance to standard wooden baseboards, Perimetaire is a baseboard warm air convection and radiant heating system. Heat is introduced into the room through the baseboard panels placed along the entire length of the exterior wall. As heat is introduced where the heat loss is created, the manufacturer claims the system to have even temperatures throughout the room. Cold air returns are in the ceiling or in high wall locations. The system requires no space in the room, it is inconspicuous in appearance, and can be painted to blend with the color motif. Baseboard units are connected to standard basement ductwork or 4-inch pipes. Berger Furnace Mfg. Co., Dept. AB, 5920 Center Ave., Pittsburgh, Pa.

New Products continued on page 188

DEXTER

The Lock with a Million Friends

A

FRENCH SHANK

B

FINGER TIP POSITIVE LOCK

C

2 SPRINGS, FEATHER TOUCH ACTION

D

STAY-TITE SET SCREW

E

"JEWELER'S" FINISH

TRANSPARENT DISPLAYS

FOR SCREEN AND COMBINATION DOORS

Easier to install — just bore two ⅝" diameter holes.

THE *Lifetime* LOCK

DEXTER LOCK COMPANY

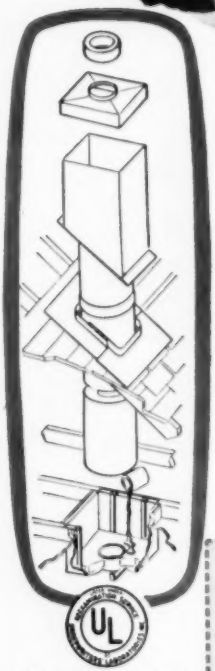
GRAND RAPIDS, MICHIGAN

A SUBSIDIARY OF NATIONAL BRASS COMPANY

Manufacturers of America's Original Tubular Locks

In Canada: Dexter Lock Canada Ltd., Guelph, Ontario

How You Install a *Complete* Chimney In 97 Minutes



Van-Packer is tested and approved fire-safe by Underwriters' Laboratories for all fuels. Also F. H. A. accepted. Insulating vermiculite concrete wall and fire-clay tile liner equal in insulating value to 24" of brick or 70" of ordinary concrete. Approved for zero clearance at floor, ceiling and roof of house.

WITH

VAN-PACKER *PACKAGED MASONRY* CHIMNEY

A complete Van-Packer Chimney can be installed by one man and a helper in 97 minutes. Here's how: 1. Nail chimney support in place. 2. Set each Van-Packer section and cement with prepared acid-proof cement furnished. 3. Nail flashing to roof, slide housing over sections, and cement rain cap in place. It's as easy to build as that. Everything furnished—nothing else to buy. Nationally distributed so you can get immediate delivery. Write for free folder and name of nearest dealer or jobber.

Van-Packer CORPORATION

209 S. LaSalle St. • Chicago 4, Illinois

Van-Packer Corporation
Dept. 1210, 209 S. LaSalle St.
Chicago 4, Illinois

Please send me additional information, free literature and the name of my local stocking dealer or jobber.

Name_____

Firm_____

Address_____

City_____ **State**_____

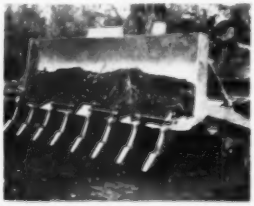
Also Manufactured and Distributed in Canada by C. A. McRobert and Son, Ltd., St. Laurent, Quebec.

NEW PRODUCTS

(Continued from page 186)

SPLIT-ROCK MASONRY UNIT AB105227
This machine is capable of making 300 splits or 600 building units per hour of concrete blocks up to 8 inches in thickness from any aggregate. It is operated by air requiring approximately 100 pounds of pressure. No electrical connections or the purchase and maintenance of any motor for its operation is required. The machine weighs 1,000 pounds and can be moved from location to location. "Split-Rock" is made in several colors and is laid up in ashlar designs as well as one size units. Equipment is sold to licensed producers. Split-Rock, Dept. AB, Rt. 4, Oconomowoc, Wis.

ROSIN COATED STAPLES AB105223
Duo-Fast staples are now being rosin-coated to grip the material where exceptionally strong holding strengths are required. The manufacturer claims that the rosin coating doubles the gripping power. The Fastener Corp., Dept. AB, 860 Fletcher St., Chicago, Ill.

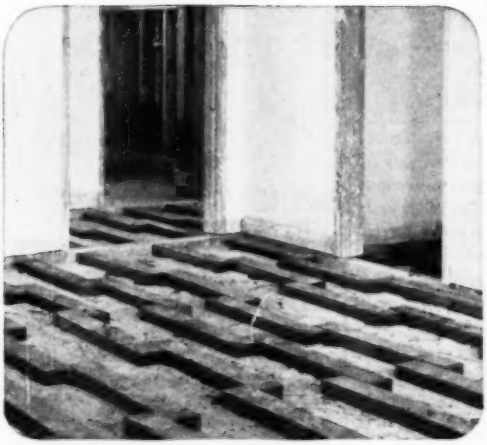


DOZER ATTACHMENT AB105203
Dirt-free brush clearing with a standard dozer blade can be accomplished with this brush rake attachment that quickly fits to the dozer blade. The unit is designed to uproot the brush, thoroughly comb the roots and debris out of the soil. This operation makes it possible to stack and burn the brush. The unit consists of two shanks fastened together with the desired spacing ready to fit to the blade. Three, four, or five units are recommended for each blade by the manufacturer. Hensly Equipment Company, Dept. AB, P. O. Box 37, San Leandro, Calif.

New Products continued on page 190

LOW-COST HOME PROSPECTS LOOK FOR OAK FLOORING

Prospects for low-cost homes know they have to sacrifice some of the features that they planned for their "dream" homes. However, builders and real estate agents report that low-cost home prospects *insist* upon oak flooring and its features—durability, economy, and "healthfulness."



Now, with new methods of laying oak flooring over concrete slabs,* builders of low-cost homes are able to include oak flooring in their plans. This is important because 85% of all prospective homeowners want oak flooring. (Laying oak on screeds set in mastic has been approved by FHA.)

Another important reason prospects look for oak flooring is its adaptability to every style and color in furniture. Most homeowners move into their new homes with their "old" furniture. When the new home has oak flooring, there is no chance of clashing color schemes.

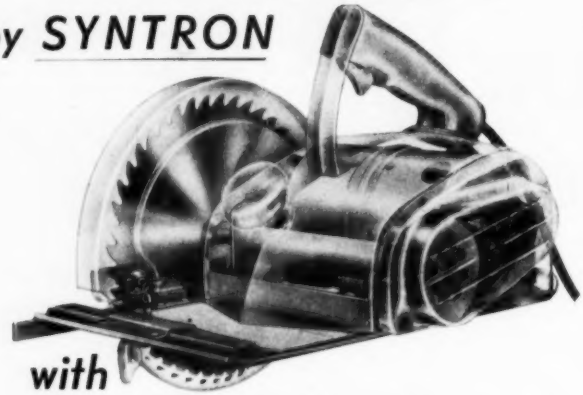
All houses sell faster when they have

good Oak flooring

*SEND TO NATIONAL OAK FLOORING MANUFACTURERS' ASSOCIATION, STERICK BLDG., MEMPHIS 3, TENNESSEE, FOR FREE INSTRUCTIONS FOR LAYING OAK OVER CONCRETE.

New-Portable Electric Saw

by SYNTRON



with Smooth--Vibrationless Dual V-Belt Drive

The new Dual V-Belt Drive eliminates gears—provides shock-absorbing, velvet smooth operation for faster, cleaner cutting. Cuts and rips wood; cuts and scores brick, tile and other materials with 6000 RPM full load blade speed. Its high speed feeds the blade in—no need to push or ram. The powerful motor—full ball-bearing . . . exceptionally cool—develops up to 1-½ H.P. It weighs 19 lbs., just the right weight for its 8-½" blade and 2-11/16" cut.

UNDERWRITER'S LABORATORY APPROVED

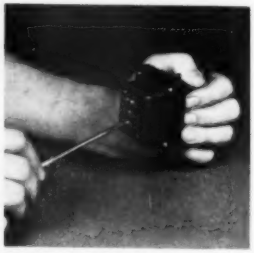
Made of tough aluminum and steel stampings for hard work and severe service. Adjustable depth of cut from ¾" to 2-11/16" and graduated angle cuts from 90° to 45° for versatility in use. Handle at center of gravity—"Feather-balanced" for easier handling, truer cutting. Telescoping safety guard, automatically covers blade. Added safety features include . . . extra heavy duty switch and grounded cable. Here is Your heavy duty saw.

Write for Free illustrated catalog folder

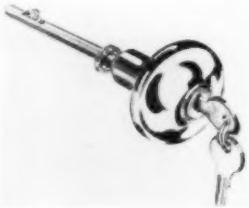
SYNTRON COMPANY
818 Lexington Avenue Homer City Penna.

NEW PRODUCTS

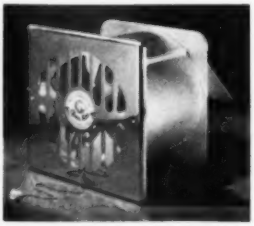
(Continued from page 188)



REPEATER TRANSFORMER AB105230
The repeater transformer can be used with any 10-volt door chime. The unit provides both a repeating chord tone and a regular current for the normal chime tone. It can be installed for repeating signals for both front and rear doors. Or, it can be used for the regular two-note (non-repeating) signal for other purposes. Up to four different signal arrangements are possible on a standard two-door chime. The Rittenhouse Co. Inc., Dept. AB, Earl St., Honeoye Falls, N. Y.



LOCKING KNOB AB105212
Any mortise type lock can be converted to a cylinder lock. The old door knob is removed, the "Knob-Lok" is inserted and the inside door knob is attached. When the exterior knob is locked it spins freely. Practical applications include homes, offices, factories, schools, churches, hospitals, ships, trailers and motels. Mastercraft Products, Dept. AB, 212 Summer St., Boston 10, Mass.



KITCHEN EXHAUST FANS AB105213
Two unit construction of this kitchen exhaust fan permits easy installation. The unit is powered with a G.E. oil-sealed motor. Requiring one square foot of wall space, the units can be installed over cabinets and through walls of any thickness. The "Clear-Aire" fans are available in eight and 10-inch standard and deluxe models for brick and frame construction. Ceiling models are available in the same size standard and deluxe units. Sin-Jin Products Co., 5236-40 Fairlawn Ave., Baltimore 15, Md.

New Products continued on page 192

BUILDERS EVERYWHERE REPORT:

ALWINTITE *helps us sell houses!*

NEW JERSEY ... "best salesman any house ever had"
English Contracting Co., Northfield, N. J.

CALIFORNIA ... "endorsed by 100% of buyers"
George M. Holstein & Sons, Los Angeles, Cal.

TEXAS ... "they appeal to every home-buyer"
Rottersmann Builders, Inc., Houston, Texas

LONG ISLAND ... "add visible sales appeal to any house"
Stackler & Frank, Hempstead, N. Y.

MISSOURI ... "a definite factor in selling houses"
Burton Duenke Building Co., Kirkwood, Mo.

The location varies — the design of the house varies — even the price range varies — BUT the story is always the same: "ALWINTITE aluminum windows have tremendous customer-appeal — they are a definite factor in stimulating sales."

Today's house-buyers want aluminum windows, so don't wait until sales lag. Decide right now to include ALWINTITE double-hung or ALWINTITE sliding windows in all your new houses. For complete information and name of nearest dealer, write to Dept. **AB-10**, ALWINTITE DIVISION, General Bronze Corporation, Stewart Ave., Garden City, N. Y.

Double Hung—
Horizontal Sliding—
Panorama—

ALWINTITE

ALUMINUM WINDOWS

Guaranteed by Good Housekeeping

QUALITY APPROVED

TWO SEATTLE CONTRACTORS SPEAK ABOUT KAY-TITE

Alco Waterproofing Co.

February 27th, 1952

Gentlemen:

After many years of specializing in masonry water proofing, using various products we found Kay-Tite by far the most outstanding. Results on every job where it has been used have been very satisfactory.

Our contracts cover all kinds of buildings, residential, government and commercial. We do work on all types of masonry, inside, out. side and above and below grade. All work is covered by bond and guaranteed.

We always recommend Kay-Tite and are most happy to attest to the dependable quality of your product as it has enabled us to give a long term guarantee on all jobs.

Very sincerely yours,
Alco Waterproofing Co.

SEATTLE WATERPROOFING CO.
ALL TYPES OF WATERPROOFING
8121 AIRPORT WAY
SEATTLE 8, WASH.

February 20, 1952

Gentlemen:

We have been using Kay-Tite for over five (5) years now with the utmost success. We have used it in conditions of extreme hydrostatic pressure and we find that it does a better job than any other product of its type that we know of.

We guarantee and stand behind our work so the choice of the proper material is quite important to us.

The pleasant experience we have had with Kay-Tite the past five years enables us to highly recommend its use either below or above grade and under any type of climatic conditions.

Yours truly,
R. W. Lyman

KAY-TITE

PROTECTS MASONRY AGAINST WATER SEEPAGE

FOR
BRICK
STUCCO
CINDER BLOCK
ROUGH MASONRY
UNGLAZED TILE

WHITE and 9 COLORS
CREAM, BUFF, YELLOW, SPANISH BUFF, GREEN, BLUE, GRAY, ROSE, BRICK RED

KAY-TITE COMPANY
WEST ORANGE • NEW JERSEY
ELEVEN FAR WESTERN STATES CONTACT KAY-TITE COMPANY
1717 WESTLAKE AVENUE, NORTH, SEATTLE 9, WASHINGTON
More than 20 years of satisfactory performance

NEW PRODUCTS

(Continued from page 190)

MEDICINE CABINET **AB105205**

A sliding door medicine cabinet has full mirrors and a laminated plastic finish. Doors are noiseless, utilizing roller bearing hardware. Shelves are fully adjustable. A center divider permits use by two people at the same time. "Gli-Dor" is manufactured in two sizes, one offering 12 lineal feet of shelf space, and the smaller, eight lineal feet. Atkins Wood Products Corp., Dept. AB, 103-12 101st St., Ozone Park, N. Y.

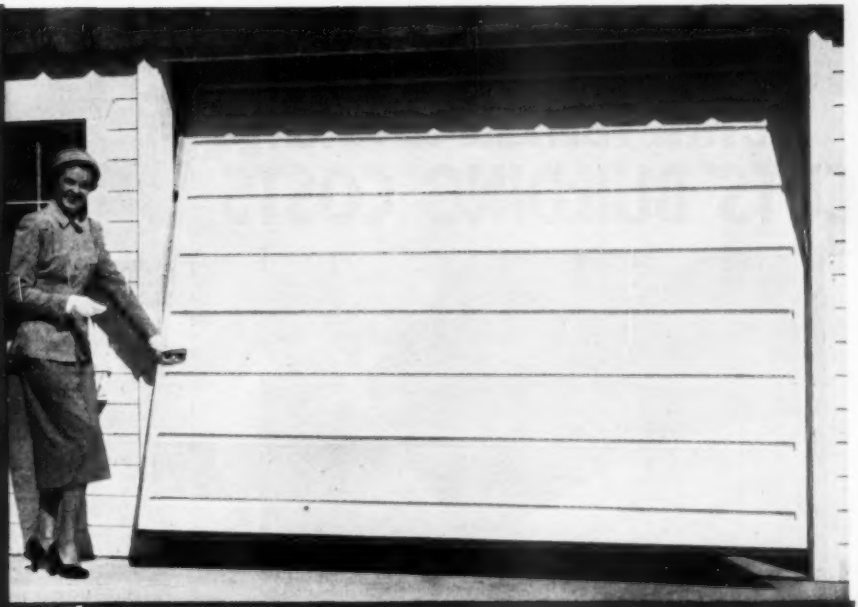
MARKED MASON LINE **AB105201**

A flexible marked mason line called "Tru-Line" establishes head joints and openings. Because of its elasticity it is helpful in laying out bond and eliminating unnecessary cuts. It can accommodate differences in masonry unit sizes by compensating for any differences in the mortar joint. The line is available for both modular and standard masonry units and allows a mason to lay units at any point of the wall. The Tru-Line Company, Dept. AB, 615 Flynn Bldg., Des Moines, Iowa.

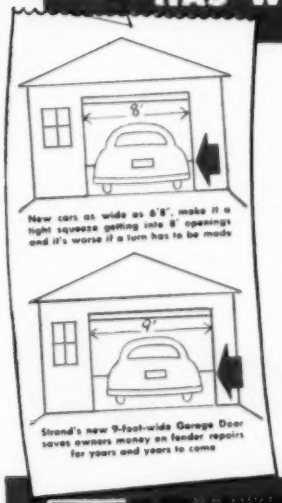
HEAT MACHINE **AB105222**

A portable oil-fired furnace in addition to furnishing heat in the winter, circulates cool air in the summer. For the winter months, the unit delivers 189,000 B.T.U.'s of heat per hour. Heat is sprayed out at the floor level over an area of 3,000 square feet. The manufacturer claims the heat is concentrated in a work zone from floor to about six feet in height. For summer, 1500 c.f.m. of cool air is circulated by changing the top blower mounting. Fageol Heat Machine Co., Dept. AB, 5725 Mt. Elliott Ave., Detroit 11, Mich.

New Products continued on page 194



Why STRAND'S NEW, 9-FOOT DOOR HAS WON NATIONWIDE POPULARITY



Strand's new 9′ x 7′ Receding (track-type) door meets the big need for a handsome, durable, low-priced door for wider garage openings—to accommodate today's *wider* cars! So—it isn't surprising that this door has met *immediate, national* acceptance. Builders have been quick to see how they can give their customers tremendously greater value.

The cost of this larger 9-foot door (over a door only 8 feet wide) is negligible—factory list price is only $5.50 more.

Strand's horizontal lines add new beauty to the garage. Rugged new X-type steel bracing adds to the great strength and rigidity of the one-piece all-steel door leaf. Strand doors are galvannealed—with a heavy galvanized zinc coat for rust protection—oxidized to provide an excellent base for paint; no priming coat needed.

The one-piece door leaf eliminates time wasted in field assembly of doors. Hardware, too, is factory assembled and packaged—and installed with simple tools. You save *plenty* of time on installation.

Strand doors cost you less—the logical result of standardizing big volume production. Strand doors are available in the following types and sizes:

8′ x 7′ Receding (track) and Canopy
9′ x 7′ Receding (track) and Canopy
16′ x 7′ Receding (track) only.

Order from your dealer, or mail coupon for information and dealer's name.

STRAND
GARAGE DOORS

STRAND GARAGE DOOR DIVISION
Detroit Steel Products Company
Dept. AB-10, 2242 E. Grand Blvd.
Detroit 11, Michigan

☐ Please send me full information about Strand All-Steel Galvannealed Garage Doors.

I am a ☐ Builder ☐ Dealer ☐ Other

Name _____

Address _____

City _____ Zone ____ State _____

MULKEY

ALL-STEEL PORTABLE ELEVATOR

CUTS BUILDING COSTS

Check These MULKEY Features

- Balanced and portable.
- One man can handle and operate.
- Handles 750 lbs. load on 45° lift.
- Eliminates hoisting, toting, wheeling up.
- Fully adjustable 5 ft. to 28 ft. Extension sections simply bolt on.
- New Trailer Hitch permits towing by car or truck.
- All steel, electric welded, bridge-type construction.
- Power: Either 4 HP gasoline engine or 1½ HP electric motor (normal use).

Forty-foot Mulkey carrying 16 blocks per minute to second floor level 23 ft. up.

Mulkey Elevators cut building costs because they save labor and time. Whether it is bricks, blocks, mortar, cement, sand, boxes, crates, sacks, lumber, roofing or dirt . . . your Mulkey Portable Elevator moves it upward to its proper place . . . quickly and easily. Yes, Mulkey Elevators raise everything *but* your labor costs . . . *lowers* those.

Write for Prices and FREE Literature today!

SAM MULKEY COMPANY

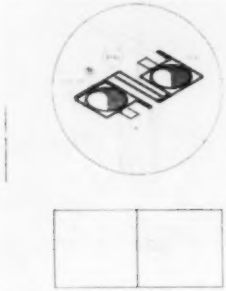
1621-AB1052 Locust Street Kansas City 8, Missouri

NEW PRODUCTS

(Continued from page 192)

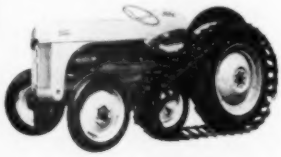
DISPLAY LIGHTING **AB105219**

Swivel sockets, built in the strip, have finger tip adjustments which swivel 90 degrees from vertical through a 360 degree circle. The lights stay put at any angle. The strips are manufactured in stock sizes of 2, 3, 5, and 8 foot lengths. These stock sizes may be combined for any desired length. The Roto Strip comes in three series, #13 for ordinary installations, #13C for corner installations, and #13R for reflector to shield the light. Neo-Ray Products, Inc., Dept. AB, 315 E. 22nd St., New York 10.



STEEL FRAME SECTION **AB105208**

The isometric drawing shows how the manufacturer welds a one-inch OD steel tube into the interlocking mullion and stile to stiffen members of a doorwall against wind stress without increasing their width. Depth of jamb is 3¼ inches. Lower drawing of the flame indicates position of the detail. Despite the increased strength "D-82" is not intended as a supporting member. Steelbilt, Inc., Dept. AB, 4801 E. Washington St., Los Angeles 22, Calif.



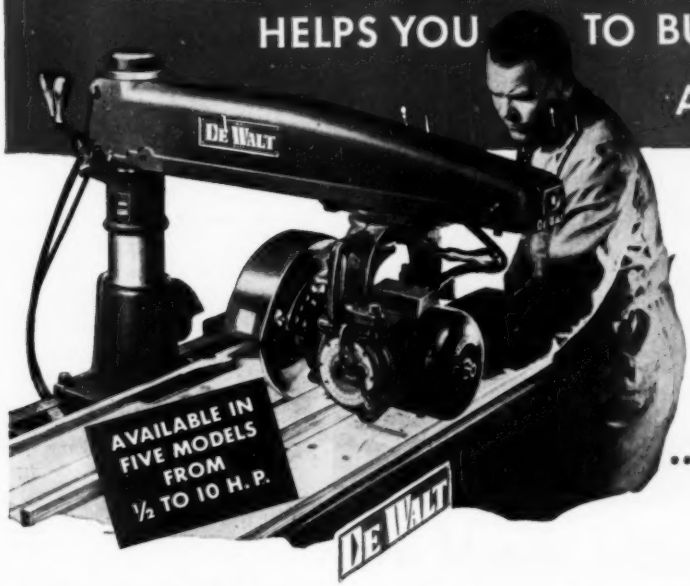
TRACTOR HALF TRACKS **AB105225**

Rubber-belted half tracks for sandy soils have been added to this manufacturer's line. The rubber belted units are furnished with single and double pressed lugs spaced to drive from all leading tractor tire brands. The idler wheels employ 5.00 x 15 pneumatic 4-ply implement rib tires and Timken tapered roller bearings. The linkage is a combination fabric and 6-ply rubber belting of high tensile strength. The units permit tractor use in all soils during any season, stated the manufacturer. Arps Corporation, Dept. AB, New Holstein, Wis.

New Products continued on page 196

DE WALT "3 adjustment action"

HELPS YOU TO BUILD FASTER... AT LESS COST!



DE WALT gives you 15 set-ups, 15 different cuts ...*in less than 15 minutes!*

You not only cut framing, jack rafters and bridging faster and more efficiently with a De Walt—but you can make 15 different cuts *in less than 15 minutes!*

Where most machines require at least 4 adjustments, De Walt's "3 adjustment action" makes it possible to position the saw for any desired cut in seconds!

This flexibility speeds up cutting, reduces operator fatigue, and enables a De Walt to turn out as much work in ten minutes—as other machines will in fifteen.

De Walt offers you unmatched precision, speed and versatility—you rip, cross-cut, plough, rabbet, tenon, bevel, miter and make many other cuts—a total of 15—in far less time than it takes ordinary saws.

Economize by making your own cabinets, special trim or window frames. Cut costs by as much as $200 a house! It's easy—and you get perfect results every time.

Find out for yourself how De Walt's "3 adjustment action" saves you time...saves you money. See your De Walt dealer or mail coupon below.

AMF

DE WALT

POWER SAWS

DE WALT INC., Lancaster, Pa.
Subsidiary of AMERICAN MACHINE & FOUNDRY CO., New York

HAVE YOU TAKEN THE DE WALT TRAINING COURSE?

De Walt Inc. invites all its dealers and distributors to Lancaster, Pa., to take a week's course of instruction in the application and uses of DeWalt Radial Power Saws.

It will be well worth your while. You'll learn new techniques of operation that will enable you to give more convincing demonstrations and more help to your customers.

MAIL THIS COUPON TODAY!

De Walt Inc., Dept. B-10, Lancaster, Pa.

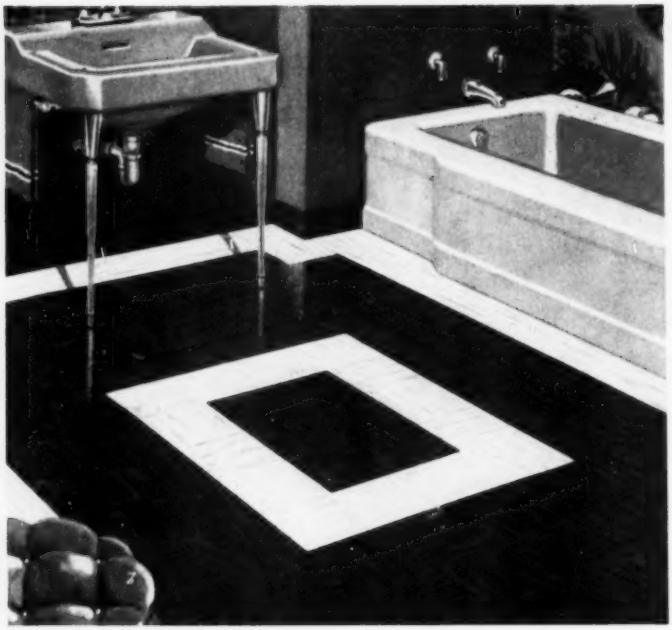
☐ Please send me full details on the De Walt Radial Power Saw Line.

☐ Please send me your informative "Saw Tips".

NAME _____

ADDRESS _____

CITY _____ STATE _____



Why every builder should use WRIGHT RUBBER TILE for bathroom floors

1. **It costs less** than other permanent bathroom floors.
2. **It is warmer** underfoot than other waterproof floors.
3. **It resists scratching** better than other permanent floors.
4. **It resists staining** by acids and medicines better than most other permanent floors.
5. **It helps sell houses!** Women see the many advantages of rubber tile for bathrooms.

Specify WRIGHT RUBBER TILE in the next homes you build!

WRIGHT MANUFACTURING COMPANY
5203 Post Oak Road, Houston 5, Texas

WRIGHT RUBBER TILE

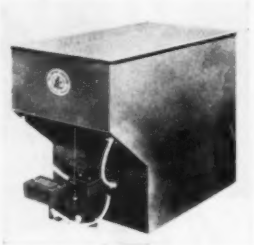
FLOORS OF DISTINCTION

- **WRIGHTEX—Soft Rubber Tile**
- **WRIGHTFLOR—Hard Surface Rubber Tile**
- **WRIGHT-ON-TOP Compression Cove Base**

3459

NEW PRODUCTS

(*Continued from page 194*)



FLOOR FURNACE **AB105211**

Vaporizing floor and wall furnaces have electric ignition systems, burners operate only as heat is required. The manufacturer claims that this system eliminates the smoke and soot often found with pilot light ignition systems. The units are available in capacities from 50,000 to 85,000 B.T.U. and in shallow pit, basement, or in-the-wall models. The units have provisions for cold air returns, and some may be installed with ducts to carry warm air to remote rooms or to second floors. Most models have forced air circulation. Iron Fireman Manufacturing Co., Dept. AB, 3170 W. 106th St., Cleveland 11, Ohio.

ENDLESS HACKSAW **AB105229**

Enables the operator to saw through an unlimited amount of material without the restrictions of the usual hack saw frame. The tool consists of a spring-loaded plunger with a pistol grip handle. A guide tube supports the blade, which rides on three hardened steel balls in the front casing. After sawing to a depth equal to the blade, the front casing remains at the point of contact of the blade and the work. The blade is now actuated by the spring-loaded plunger. Pressure is needed on the forward stroke only, return stroke is automatic. "Leytool," Alpha Tool and Supply Co., Dept. AB, P. O. Box 119, Westwood, N. J.

RECEPTOR BATH **AB105232**

Designed for limited space installations, this receptor bath is large enough for conventional tub bathing and small enough for a shower stall space. Requirements are 38x39 inches with the bathing area running diagonally. Made of cast iron, it is available in white and colors. The manufacturer claims it to be useful as a space saving second bath or in remodeling work. American-Standard, American Radiator and Standard Sanitary Corp., Dept. AB, Pittsburgh 30, Pa.

New Products continued on page 198

You buy what is behind the name

When you buy an ADLAKE product, you receive something with it that never shows up on an invoice . . . the integrity of the manufacturer.

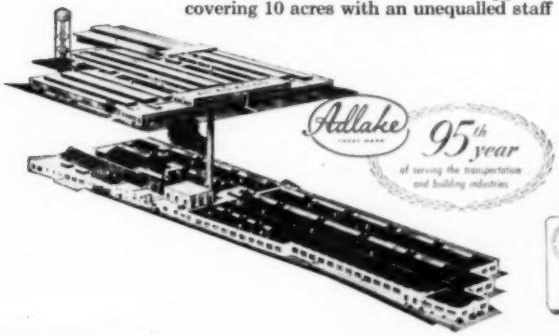
Integrity is made up of many things. In the case of The Adams & Westlake Company, it's a combination of

• **Experience** Almost a century of manufacturing know-how is behind each ADLAKE product.

• **Facilities** A modern manufacturing plant covering 10 acres with an unequalled staff of specialists to maintain the high level of ADLAKE workmanship.

• **Good Faith** ADLAKE's policy has always been to keep faith with its customers. For that reason, no effort is spared to make sure that every purchaser gets precisely what he bargained for and that he is always satisfied.

This integrity is an integral part of every ADLAKE Aluminum Window . . . as architects, builders and managers of schools, hospitals and commercial buildings all over the nation can testify!



THE
Adams & Westlake
COMPANY

QUALITY APPROVED

Established 1857
ELKHART, INDIANA
New York • Chicago

NEW PRODUCTS

(*Continued from page 196*)

BIRCH TRIMMED DOORS AB105215
Seven birch trimmed exterior doors for modern and traditional homes are offered in the Hiawatha Decorator Door line. The birch mouldings are permanently welded to seven-ply birch flush doors at the factory. The doors are available in solid or hollow core construction. Latest manufacturing and gluing processes are used in the manufacture of the door. Mohawk Flush Doors, Inc., Dept. AB, 3383 Hammond Ave., Elkhart, Ind.

DRAFTING INSTRUMENT AB105210
This instrument provides a T-square, straightedge, triangle protractor, 1/32nd inch scale, and parallel rule. It measures 10¼ by 3 3/16 inches and requires no attachments or board clamps. The improved model now has metal parts thus eliminating slippage. "Paraline," Loomis Industries, Dept. AB, Box 442, Berkeley 1, Calif.

LOW-HEADROOM BRACKET AB105207
Overcomes the limited headroom problem for sectional-type garage doors. Packaged a pair to the box, the Frantz No. 99 low headroom unit is designed to be used on any Frantz sectional-type door where less than 13½ inches of headroom is available. Use of the bracket requires 9½ inches of headroom. By lowering the track three inches, just 7½ inches of headroom is required. Frantz Manufacturing Co., Dept. AB, Sterling, Ill.

New Products continued on page 200

MASONITE PRESDWOOD

builds extra profits for you . . .

keeps your men busy . . .

Many homes in your locality have unfinished areas that Masonite Presdwood® magic can transform into smart rooms for every use.

Masonite Presdwood is ideal for this kind of work:

1. **Its large, all-wood panels cover a lot of surface . . . *fast.***
2. **It is easily cut and fitted—light in weight.**
3. **It will not split or crack because it is grainless.**
4. **It takes paint, enamel, stain or varnish, beautifully.**
5. **It can bend to attractive curves for modern effects.**
6. **It comes in 23 different types and thicknesses, and in different densities and surface patterns to give you just the right Presdwood for the job.**

Yes, you can build business with Masonite Presdwood. Your building materials dealer will be glad to show you the complete line of Presdwood Hardboards.

MASONITE® CORPORATION
Dept. AB-10, Box 777, Chicago 90, Ill.

"Masonite" signifies that Masonite Corporation is the source of the product

GET ALL THE FACTS ON THESE BETTER HARDBOARDS FOR BETTER BUILDING.

Please send me literature on Masonite Presdwood.

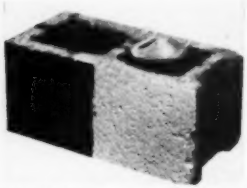
Name.....

Address.....

City.....*Zone*.....*State*.....

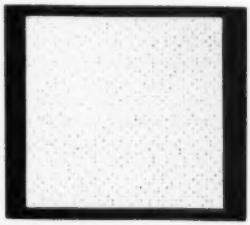
NEW PRODUCTS

(Continued from page 198)

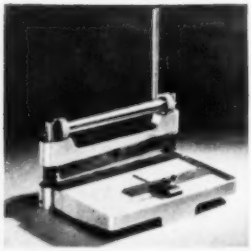


MASONRY PAINT AB105202
A one-coat masonry paint, "Bloc-Seal," may be applied both above and below grade, exterior and interior. The manufacturer claims that it is especially effective in resisting normal hydrostatic conditions on the interior below-grade walls. It may be applied to either dry or damp surfaces and over the rough textures. It is claimed to be resistant to lime, alkali, salt, mold, and fungus. The paint can be sprayed, although it is packaged in the proper consistency for brush application. One gallon covers from 100 to 250 square feet depending on porosity and surface irregularities. Drying time is 4-6 hours. Surface Protection Co. Inc., Dept. AB, 16808 Euclid Ave., Cleveland 12, Ohio.

NEW ROOFING COLOR AB105217
"Shasta Snow" is a light pastel shadow blend added to the manufacturer's line of asbestos-plastic shingles. Ceramic mineral granules in soft pastel green and gray, frosted with white, make up the new color. The manufacturer states the color is particularly adaptable to ranch style, modern and contemporary homes. Fire-Chex Shingles, The Philip Carey Mfg. Co., Dept. AB, 316 S. Wayne St., Cincinnati 15, Ohio.



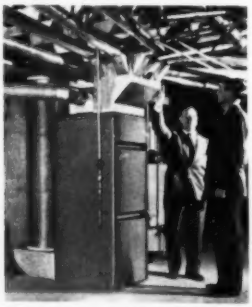
RANDOM PATTERN TILE AB105220
Random pattern sound-absorbing tile with its scatter perforations of varied sizes is a departure from conventional methods. All functional characteristics are retained. The tile is made with a new Celotex No. 6 finish, a linen washable surface. The surface can be repainted without impairing its sound absorbing capacity. Also available is a flame retarding oil base paint finish. The Celotex Corp., Dept. AB, 120 S. LaSalle St., Chicago 3, Ill.



PLASTIC TILE CUTTER AB105233
Combining light weight and sturdiness, this plastic tile cutter cuts all sizes of polystyrene tile, including 8½" x 8½". All working parts of the device are precision machined to .0001" tolerance, assuring maintenance of the proper cutting angle throughout the entire cut. The cutter is provided with a hardened tool steel cutting blade, easily replaceable, providing sure cutting of any brand of tile, either butt or interlocking type, as well as aluminum, rubber, or linoleum. Repetitive and diagonal cuts can also be made. Walter E. Selck and Co., Dept. AB, 225 W. Hubbard St., Chicago 10, Ill.

LAVATORY AB105224
The Beverly is a low-cost acid resisting vitreous china lavatory with a sloping panel back and a plain apron. Over-all size is 20x18 inches with a 14½x11-inch basin. Trim for the plumbing fixture is the Whitney featuring the Crane Dial-ese control. The unit is available in eight colors: suntan, french grey, persian red, citrus-yellow, pale jade, india ivory, sky blue, and shell pink. Crane Co., Dept. AB, 836 S. Michigan Ave., Chicago 5, Ill.

LAUNDRY PAIR AB105209
1953 models of Bendix automatic washer and dryer equipment are designed to fit in today's kitchens. Both units are constructed to set flush against each other and flush to the wall. This eliminates dirt-catching cracks and hard-to-get-at openings. Features of the '53 washer are a heater which makes the wash water hotter. Also included is a timer which delays washing action until the tub is filled regardless of water pressure. The dryers are fully automatic with time and temperature controls and the possibility of venting to the outside. Bendix Home Appliances, Div. Avco Mfg. Corp., Dept. AB, 3300 W. Sample St., South Bend 21, Ind.



LOW VELOCITY DUCT SYSTEM AB105214
Four-inch round ducts or perimeter heating are combined with adjustments for continuous air circulation. The small duct system, according to the manufacturer, delivers even heat from floors to ceilings. The system has been designed by Janitrol engineers for use with their equipment. The engineers declared that savings of up to 35 per cent can be realized with the new installations. Surface Combustion Corp., Dept. AB, 2375 Dorr St., Toledo 1, Ohio.

USE THIS COUPON FOR MORE INFORMATION ON NEW PRODUCTS IN THIS ISSUE

Save Time—Just Insert Key Numbers and Mail To: American Builder, 79 W. Monroe Street, Chicago 3, Illinois

Name .....

Address .....

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No.	**No.**	**No.**	**No.** .....
No.	**No.**	**No.**	**No.** .....
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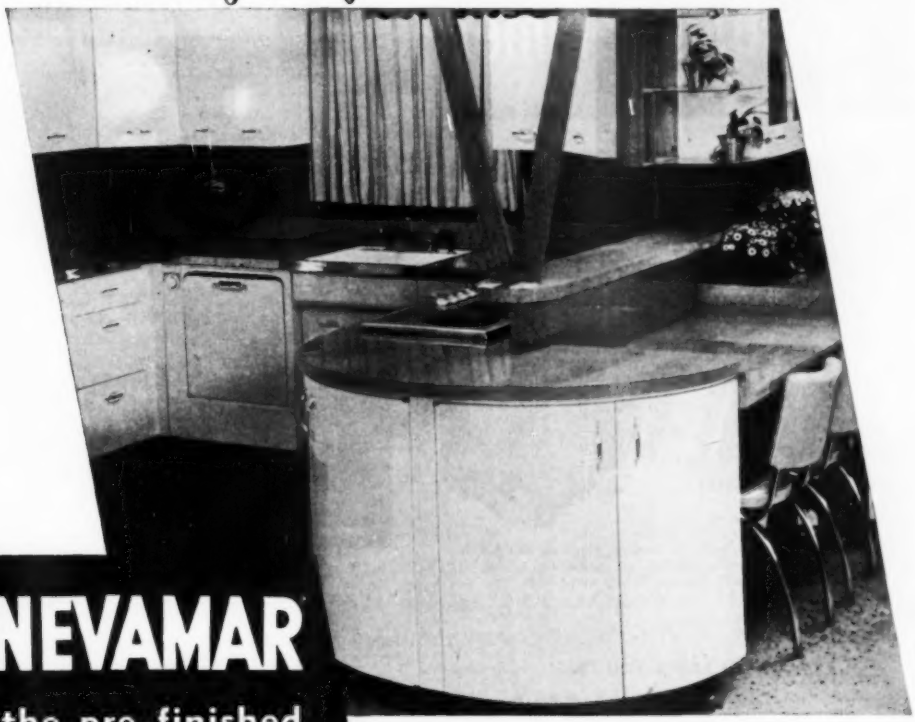
When you address inquiries direct to manufacturers concerning a new product described here, please mention that you saw it described in American Builder

Planning a glamour-kitchen?



NEVAMAR

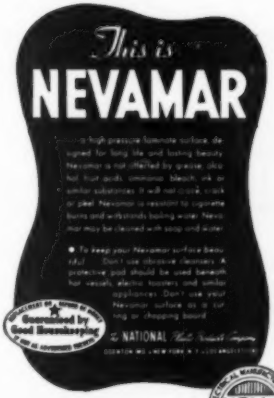
the pre-finished surfacing material

...for lasting beauty and carefree duty

Just imagine a surfacing material that meets every requirement of the architect and decorator for beauty, color, versatility and long life. That's NEVAMAR—the super-hard, super-smooth high-pressure laminate that's adaptable to practically every type of interior.

With NEVAMAR, you can create exciting effects in perfect taste for professional offices or commercial projects. NEVAMAR has won acclaim again and again in installations ranging from glamorous kitchens to the nation's largest airport terminals. Its possibilities are simply unlimited! NEVAMAR is available in a wide range of colors and patterns, including beautiful wood grains. We'll be glad to give you all the facts you should have to use NEVAMAR to best advantage.

DISTRIBUTOR: THE NEVAMAR COMPANY, BALTIMORE-30, MARYLAND



NEVAMAR high-pressure laminates conform to NEMA specifications.

The NATIONAL *Plastic Products Company*

Manufacturers of Nevamar Decorative and Industrial Laminates • **SARAN FILAMENTS** • Wynene Molded Products

ODENTON, MARYLAND • NEW YORK: EMPIRE STATE BUILDING • LOS ANGELES: 5025 HAMPTON STREET

BOSTITCH Stapling Hammer

DRIVES HOME TWO BIG POINTS

1 **BOSTITCH SAVES YOU MONEY**

Up to 30% in fastening costs—on building jobs like these: holding down felt in laying built-up roofing, applying asphalt shingles to new roofs, putting up insulating siding, sheathing paper, insulation and heavy mesh lath.

2 **BOSTITCH SAVES YOU TIME**

Bostitch H4 Stapling Hammer is three times faster than hammer and nails. One blow drives ¾" staple all the way home, spreading legs inside work (as shown) for maximum holding power. Workers like the H4's one-hand, long-reach operation.

SEND COUPON FOR FREE BULLETIN ON H4 STAPLING HAMMER AND APPLICATION DETAILS

BOSTITCH®

BOSTITCH
830 Mechanic Street
Westerly, R. I.

AND FASTER
fastens it better with wire

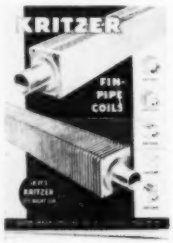
I'm interested in more information about how Bostitch can help me save time and money on applying:
☐ Insulation ☐ Paneling ☐ Building Paper
☐ Roofing ☐ Metal Lath and Cornerite

Name _____
Company Name _____
Address _____
City _____ *State* _____

Catalogs—

and Manufacturers Literature

287—FIN PIPE COILS—Factually written, this catalog is well illustrated and organized to provide maximum information with a minimum of reader effort. In its 8-pages are contained the necessary information to design, select, and install the fin-pipe coils and covers. The catalog is intended for users of commercial and institutional steam and hot water heat. Kritzer Radiant Coils Inc., Dept. AB, 2901 W. Lawrence Ave., Chicago 25, Ill.



288—CARBIDE TIPPED SAWS—An illustrated 12-page catalog shows the manufacturer's complete line of carbide tipped saws for cutting all types of softwood, hardwood, and plywood. Listed are all standard and stock sizes of carbide tipped rip, cut-off combination, easy-cut, dado, and groover saws. In addition, helpful hints for the care of saws, selecting the right saw, and typical applications are given. Simonds Saw and Steel Co., Dept. AB, 470 Main St., Fitchburg, Mass.

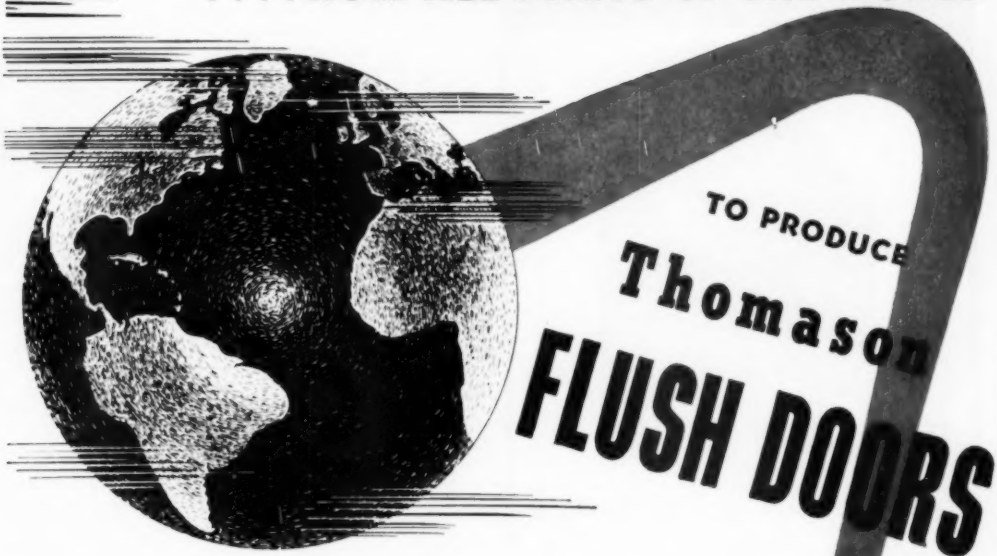
289—CONCRETE MIXTURES—The ninth edition of "Design and Control of Concrete Mixtures" has been released. The 70-page edition gives builders and cement contractors many fundamental facts about concrete. The 14 chapters cover all operations as found in today's residential building. Special chapters cover special finishes and colors, air-entrained concrete, and concrete specifications. Portland Cement Association, Dept. AB, 33 W. Grand Ave., Chicago, Ill.

290—STORE FRONT SELECTOR — This 9x12-inch booklet depicting many types of Kawneer store fronts has been designed as an aid to customers. It will acquaint the prospective merchant, interested in remodeling, with store front construction. The company believes the booklet will save the salesman time and trouble. It gives the merchant a choice of 45 different sketches. The Kawneer Co., Dept. AB, 714 N. Front St., Niles, Mich.

(*Continued on page 204*)

It Requires Rare and Rugged Woods

. . . FROM ALL PARTS OF THE WORLD



TO PRODUCE

Thomason

FLUSH DOORS

By boat . . . by rail . . . from Africa, the Philippine Islands, Panama, Honduras, Canada, and from America's own Northern and Appalachian forests come the rare and rugged woods that go into the production of THOMASON Flush Doors.

THERE ARE THOMASON HOLLOW AND SOLID CORE FLUSH DOORS FOR

Residences, Apartments, Office Buildings, Hotels, Schools, Hospitals, Institutions and Public Buildings

AVAILABLE IN THESE FACE VENEERS

- ✓ PHILIPPINE MAHOGANY
- ✓ WALNUT
- ✓ GENUINE HONDURAS MAHOGANY
- ✓ OAK
- ✓ BIRCH
- ✓ KNOTTY PINE
- ✓ GUM
- ✓ OR IN ANY FACE VENEER DESIRED.

PLEASE NOTE

THOMASON plastic-faced flush doors are now available in all domestic and foreign wood grain plastics, as well as in decorative plastics.

SOLD ONLY THROUGH DISTRIBUTORS

Write For Name and Address of Your Nearest Distributor

THOMASON

PLYWOOD CORPORATION

FAYETTEVILLE • NORTH CAROLINA

Now SIMPLIFIED . . STANDARDIZED

BENNETT

Warm-Aire FIREPLACE

Here's the fireplace your trade has been waiting for. It's *simplified* for prices that mean volume . . . *standardized* for quick, economical construction. It's the contractor's favorite—*all* Bennett's new sizes lay up with standard brick—*without cutting!*

It's a complete form, including a scientifically proportioned firebox and throat, downdraft shelf and heating chambers. Other features include:

- **Extra large funneling chamber**
- **Leak-sealing flanges**
- **Longer sidewall baffles**
- **Simple, efficient damper—built-in**
- **Interchangeable, rotary or poker controls**
- **Large backwall heating chamber**
- **Better view of fire**
- **More radiant heat**

Sizes are 27", 31", 35", 39", 43" and 49".

Write for complete information on this big-volume, good margin line. The new Bennett Fireplace offers you the best profit opportunity ever. Address your inquiry to us at 1052 Market Street.

By the Makers of Flexscreen

BENNETT-IRELAND INC.

Chartered in 1906

NORWICH, NEW YORK

Catalogs

(*Continued from page 202*)

291—METAL MOULDINGS—The completeness of this catalog makes it relatively easy for the builder to select metal trim. Extruded aluminum alloy and rolled metal trim for use with all types of floor coverings, wall coverings, and special applications are diagramed in the catalog. Many details have been included for installation information. Additional photographs show many installations of various materials and how they are trimmed. The B and T Metals Co., Dept. AB, Columbus 16, Ohio.

292—UNIT WOOD CABINETS—A 12-page catalog that lists the company's line of wood cabinets for kitchen and general household storage. Included in its pages are illustrations of the cabinets with full information concerning their sizes. Many illustrations are devoted to suggested uses in kitchen and other rooms. Full color illustrations show the company's new modern stained pine cabinets. Also illustrated in the catalog is a 10-step installation series. Carr Adams & Collier Co., Dubuque, Iowa.

293—CEILING RADIANT HEATING—A 20-page booklet that gives a detailed, nontechnical explanation of the features of ceiling radiant heating. It answers many of the frequently asked questions about ceiling radiant heating, and reports the views of people who have this type of heating in their homes and businesses. Bundy Tubing Co., Dept. AB, 8109 E. Jefferson Ave., Detroit 14, Mich.

294—FIREPLACE SALES PLAN—Dealers who handle fireplace equipment can get merchandising aids to assist them in increasing their fireplace sales potentials. Merchandising helps include a book of fireplace designs, life size showroom display material, and mailing literature. The manufacturer believes that his package has everything to help the dealers better meet the public's growing interest in outdoor cooking facilities. The Majestic Co., Inc., Dept. AB, Brown St., Huntington, Ind.

(*Continued on page 206*)

FACTS YOU SHOULD KNOW ABOUT

maintenance reduction

WITH PITTSBURGH CORNING GLASS BLOCKS

QUESTION . . . What product should we use in daylight openings that will increase the saleability of the new homes we build and give us a good selling point to offer in securing remodeling jobs?

ANSWER . . . Install PC Glass Block panels. They are very easy to put up. They involve no wood or metal sash to rust, corrode, warp, decay or rot; eliminate periodic painting and puttying. Panels are easily cleaned as large, smooth units—not small panes. They stay clear and clean longer.

When building new homes or remodeling old ones, you can offer the home owner almost complete freedom from window repairs and replacements by recommending PC Glass Blocks. PC Glass Blocks eliminate the need for periodic painting, puttying and caulking around window areas; they do away with wood or metal sash, with its tendency to rot, decay, corrode or rust; and they simplify cleaning. This maintenance-reduction feature will add to the saleability of the new homes you build and will also give you an important advantage to offer in remodeling work.

The durability of PC Glass Blocks assures home owners a permanent construction. They are not easily marred or broken; they discourage vandalism. And should an individual block need replacement, it is a simple task for any mason.

PC Glass Block panels have no small, individual panes to wash, as in conventional windows; no muntins or cross sash to clean—just a sweep of one smooth glass-and-mortar surface. A damp cloth will take care of the cleaning—*quickly*. What's more, rain keeps the outside surface of the panels free from dirt; there is no infiltration of dust and grit, so that cleaning is made even easier.

Remember these facts—when building new homes or remodeling old ones. And for complete information, fill in and return the coupon below.

Other Facts: PC Glass Blocks reduce initial time, labor and material costs; they lower heating and air-conditioning expense; they admit abundant, natural daylight while assuring complete privacy; are immediately available.

Distributed by Pittsburgh Plate Glass Company; W. P. Fuller & Co. on the Pacific Coast; Canadian Pittsburgh Industries Ltd., Hobbs Glass Div., in Canada; and by leading distributors of building materials everywhere.

MAIL THIS COUPON FOR FREE BOOKLET . . . NOW!

PITTSBURGH PC CORNING ®

Pittsburgh Corning Corporation
Dept. B-102, 307 Fourth Avenue
Pittsburgh 22, Pa.

Please send me a copy of your FREE booklet, "More Light, More Beauty, More Comfort in Your Home."

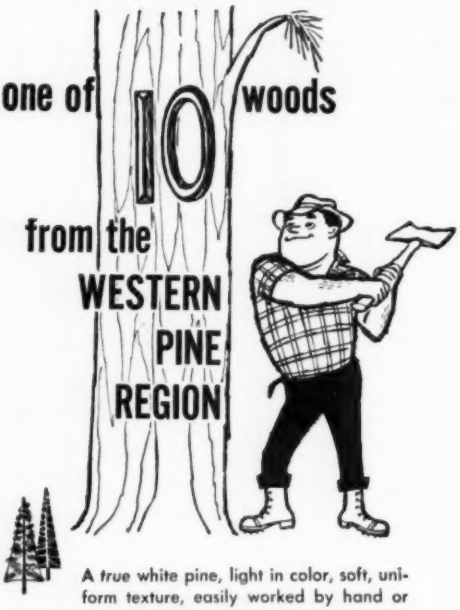
Name .....

Address .....

City ..... State .....

PITTSBURGH CORNING CORPORATION · PITTSBURGH 22, PENNSYLVANIA

SUGAR PINE



A *true* white pine, light in color, soft, uniform texture, easily worked by hand or machine. Ideal for interior and exterior trim, paneling, sash, doors, siding, pattern and cabinetwork. Takes and holds paint, enamels, other finishes beautifully, and has a fine satiny sheen when left natural and waxed, or lightly stained.

This is but one of ten fine softwoods from member mills of the Western Pine Association. All are manufactured, seasoned and graded to exacting Association standards. Lumber dealers, builders, architects and wood users have found them dependable and best for many construction uses.

THESE ARE THE WESTERN PINES

IDAHO WHITE PINE
PONDEROSA PINE • SUGAR PINE

THESE ARE THE ASSOCIATED WOODS

LARCH • DOUGLAS FIR
WHITE FIR • ENGELMANN SPRUCE
INCENSE CEDAR • RED CEDAR
LODGEPOLE PINE

THE WESTERN PINE REGION

Write for free illustrated book about Sugar Pine. Address: Western Pine Association, Yeon Building, Portland 4, Oregon.

Catalogs

(*Continued from page 204*)

295—STEEL CASEMENT WINDOWS—A 14-page booklet designed for the consumer features photographs and drawings of suggested installations. Illustrations and details for every room in the house are included. Features of the windows are also covered. Ceco Steel Products Corporation, Dept. AB, 5601 W. 26th St., Chicago 50, Ill.

296—FLOORING COMPOUND—This 2-color brochure tells in detail, with drawings and photographs, some interesting facts on floor reclamation. Structurally sound floors, regardless of condition, can be converted quickly and inexpensively, states the manufacturer. The brochure is of interest to maintenance men and other industrial and domestic users of flooring. Roc-Wood Flooring, Inc., Dept. AB, 2268 So. Parkway, Chicago 16, Ill.

297—EXPLOSIVE CHARGE FASTENERS—Listed in the company's latest folder is complete information concerning Ramset fastening tools and accessories. Both light and heavy duty tools are fully described. All sizes and types of drive pins are detailed. Explosive charges, couplings, and construction fixtures are also included. Ramset Fasteners Inc., Dept. AB, 12117 Berea Rd., Cleveland 11, Ohio.

298—DEODORIZING MEDICINE CABINET—An ozone lamp built into a medicine cabinet that helps clean and purify bathroom odors is described and illustrated in a pamphlet. The chrome plated grill work permits air to circulate through the unit and be purified. The unit will handle rooms of approximately 1,000 cubic feet. Normal cost for operating the ozone lamp is ⅕ of a cent per day. Closing the cabinet door does not affect the deodorizing operation. Standard Steel Cabinet Co., Dept. AB, 3701 Milwaukee Ave., Chicago 41, Ill.

SERVICE COUPON—CLIP and MAIL to CHICAGO

Readers Service Department **October, 1952**
American Builder
79 W. Monroe St., Chicago 3, Ill.

Please send me additional information on the following product items, or catalogs, listed in this department:

Numbers .....

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*Please note that occupation must be stated if full service is given.

with STANLEY

FOLDING SHELF BRACKETS

They're open when she wants them—easily closed when she's through! Fold-Away Shelves with Stanley Brackets are a great sales point in today's homes.

They are ideal for kitchen, pantry, laundry or workshop. They lock automatically in the open position, easily release for closing. Available in range of sizes up to 16" x 16", sturdy wrought steel, japanned, inexpensive. Consider how greatly they'll add to the finish of your job, for such a modest cost. See them at your dealer's.

The Stanley Works, New Britain, Connecticut

Sell the Lady and you sell the Home!

—With Appealing, Convenient, Space-Saving Shelves

STANLEY

Reg. U.S. Pat. Off.

HARDWARE • TOOLS • ELECTRIC TOOLS
STEEL STRAPPING • STEEL

More than 104,000 housing units have been built with

TECO

TRUSSED RAFTERS

By eliminating load-bearing partitions, TECO Trussed Rafters provide clear span roof construction that affords flexibility of interior design and speeds up building schedules.

Common 2x4's and 2x6's, put together in pairs with TECO WEDGE-FIT Split Rings, save materials and labor in trussed rafters up to 32 feet in span.

See how others have saved time, money and materials by using TECO Trussed Rafters in homes, schools, churches and other building construction . . . send for your FREE copy of this booklet TODAY.

TIMBER ENGINEERING COMPANY

1319 18th STREET, N.W., WASHINGTON 6, D. C.

Please send FREE copy of "Wood Frame TECO Trussed Rafters."

Name .....

Company .....

Street .....

City ..... Zone ..... State .....

AB

FACTS FOR BUILDERS

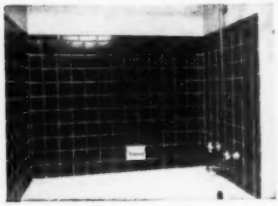
ABOUT "CONSTRUCTION BY ADHESION"*

MIRACLE ADHESIVES CORP.
214 E. 53 St. • New York 22, N. Y.
"CONSTRUCTION BY ADHESION"
*Reg. U.S. Pat. Off.

HERE ARE NEW METHODS WHICH MEAN SUBSTANTIAL SAVINGS IN LABOR AND MATERIALS FOR MODERN CONSTRUCTION

in both *NEW* building and *MODERNIZATION*

WRITE TODAY FOR RECOMMENDED SPECIFICATIONS ON
1. Setting Genuine Clay Tile. 2. Insulating Ducts. 3. Insulating walls and ceilings either by Direct Adhesion or in conjunction with Surface Anchors. 4. Installing floor runners; bonding furring strips.



1.

Today it is normal procedure to install clay tile in hotel bathrooms without losing a night's revenue. This illustration shows one of the 344 rooms in the White Plaza Hotel, Dallas, Texas, in which MIRACLE ADHESIVE was used to do the job from the time the guest left his room in the morning until he returned that afternoon.

2.

Plaster applied over wire and cork which has been attached to aluminum ducts using MIRACLE ADHESIVE and MIRACLE SPINDLE ANCHORS at John Hancock Mutual Life Insurance Co. Building, Boston, Mass. ARCHITECT, Cream and Ferguson. BUILDER, Turner Construction Co.

3.

FIBERGLAS insulation Type PF-613, 2" thick — bonded to concrete ceiling using MIRACLE PRONGED ANCHORS at Radio City Studio 6B, New York, N. Y. CONTRACTOR, William J. Scally, Inc., New York, N. Y.

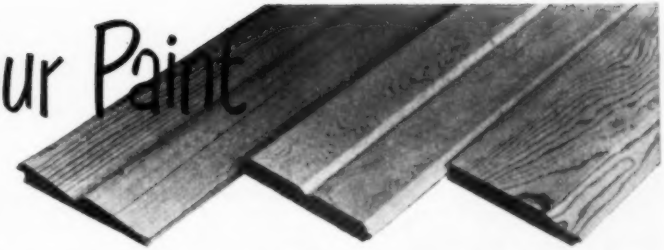
4.

WOOD RUNNERS installed on concrete floors with MIRACLE ADHESIVE and MIRACLE ANCHOR NAILS to support 2" solid partitions. Washington Circle Apartments, Washington, D.C. GENERAL CONTRACTOR, Charles H. Tompkins Company.

VISIT MIRACLE EXHIBIT AT ARCHITECTS SAMPLES CORP.
101 PARK AVE., NEW YORK CITY

Distributed Coast to Coast—and in Canada

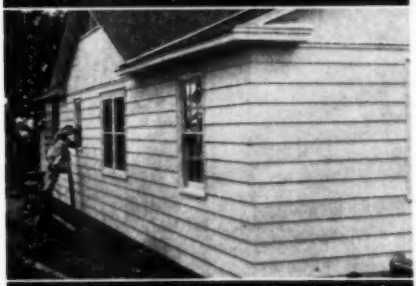
Protect Your Paint Jobs with



ARKANSAS SOFT PINE SIDING

. . . It Won't Bleed Through

Priming penetrates the resin-free fiber and becomes integral with it.



Finishing coats are brushed on and worked into the wood, minimizing checking.

Soft texture nails without splitting. Cornice mouldings stay put, with no marring open joints.

Arkansas Soft Pine siding can take it . . . in Texas summers, Maine winters, or Corn Belt hot spells!

It's A NATURAL

Arkansas Soft Pine is free from pitch. There's nothing in the wood to bleed through.

Priming penetrates the resin-free soft texture of Arkansas Soft Pine, becoming integral with the wood's fiber. Finishing coats thus are brushed on and worked into the wood itself, not merely carried on the surface of the primer. This advantage minimizes paint checking or scaling.

Freedom from pitch spells soft texture that nails without splitting, even miters at all joints, no unsightly cracks, cornice mouldings that stay put, which add up to maximum protection of paint.

Arkansas Soft Pine is available at lumber dealers east of the Rockies in standard patterns of drop and bevel siding and clapboards, along with dimension, sheathing and finish of the same superior soft textured stock.

For data on how to specify, illustrated grades, painting instructions, etc., ask for your copy of this complete Handbook for Builders.

ARKANSAS Soft Pine BUREAU

1052 Boyle Building

LITTLE ROCK, ARKANSAS

you can see

that

Trinity White

is the whitest

white cement!

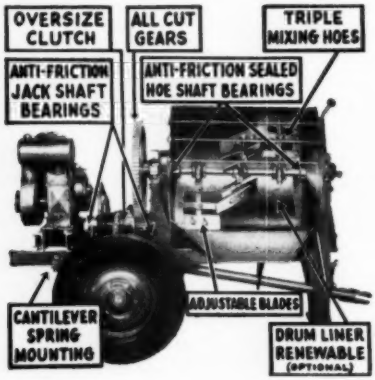
You'll get fine results with this extra white cement. It's a true Portland Cement made to ASTM and Federal Specifications. If your dealer does not have it, write our office nearest you. General Portland Cement Co., 111 W. Monroe St., Chicago; Republic Bank Bldg., Dallas; 816 W. 5th St., Los Angeles; 305 Morgan St., Tampa; Volunteer Bldg., Chattanooga.

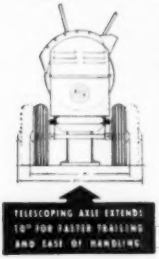
as white as snow

WONDER PLASTER & MORTAR MIXERS

America's Finest Hoe Type Machines

Choose a "Super Six" or a "De Luxe" and you'll get a light-weight unit with quality features usually found only in expensive, heavy-duty installations. Sealed hoe, jack shaft bearings, renewable blades, triple mixing hoes minimize repairs and guarantee money-making performance. Send TODAY for illustrated, descriptive Bulletin HM 5491.

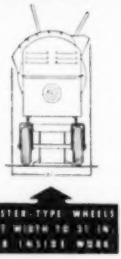




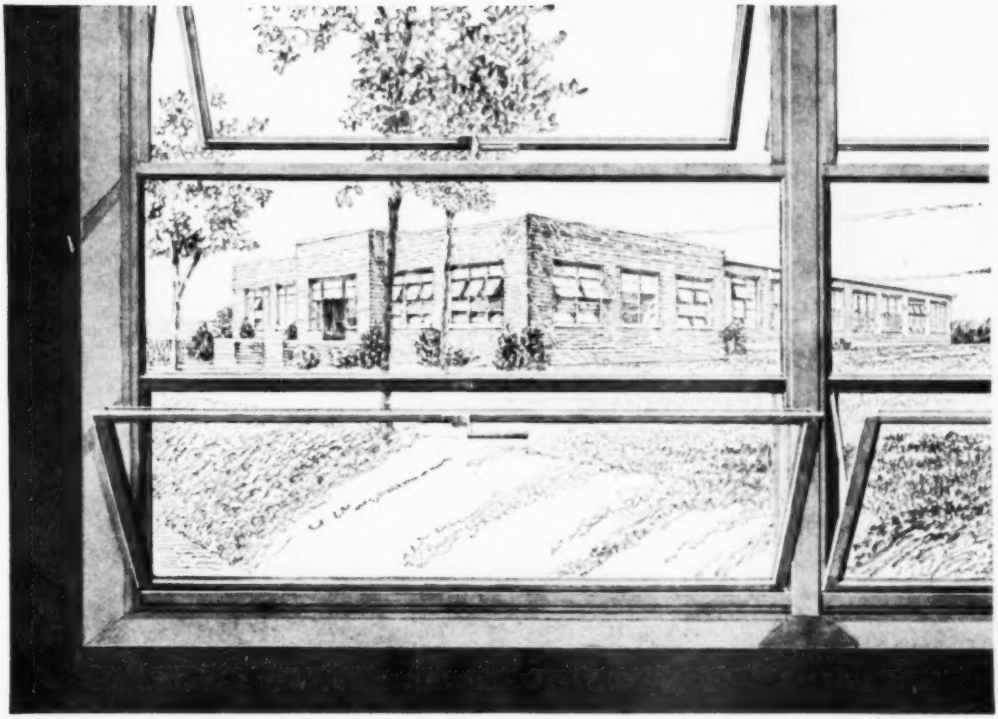
SUPER SIX
5:50 x 16 pneumatics
Wisconsin 4-5 HP air cooled

DE LUXE
4:00 x 18 pneumatics
Briggs & Stratton 3-4 HP air cooled

- **LOWER SHOVELING HEIGHT**
- **BUILT IN SAFETY GRATING**



CONSTRUCTION MACHINERY COMPANIES
WATERLOO, IOWA



The Walton Company, Hartford, Conn. Consulting Architects: Moore & Salisbury, West Hartford. General Contractors: Bartlett-Brainard Company, Hartford. Engineers: Buck & Buck, Hartford.

When building budgets are tight, make sure of value. Initial price is only one factor — it is quality that determines total cost through the years. Take windows for example. The industrial building shown above enjoys abundant daylight and controlled, natural ventilation through efficient Lupton Projected Steel Windows.

Competitively priced, their simplicity of design, deep ventilator members, welded ventilator construction and easy operation means long life with minimum maintenance expense. Like all windows in the extensive Lupton line they are a quality product, precision engineered for trouble-free service.

From the basic metal bars — in shapes especially designed for windows — to final factory inspection — Lupton Metal Windows benefit through over 40 years manufacturing experience. Owner satisfaction is assured.

The Projected style is only one type offered in Lupton Steel and Aluminum Windows for residential, commercial, institutional, educational and industrial buildings. For complete specifications, contact the local Lupton Representative, write for the General Catalog, or see it in Sweet's.

MICHAEL FLYNN MANUFACTURING COMPANY
700 East Godfrey Avenue, Philadelphia 24, Penna.
Members of the Metal Window Institute and Aluminum Window Manufacturer's Association

LUPTON
METAL WINDOWS

LOOK HOW MODERN A ROOM CAN BE WITHOUT RADIATORS!

Find the radiator! Crane radiant baseboard heating is inconspicuous and can easily be adapted to any decorating scheme. Easily installed in new houses or old.

Crane radiant baseboard panels make the homes you build more sale-able

Your customers can get more pleasure from the houses you build, when they don't have to arrange their furniture around conventional radiators or warm air registers.

That's the beauty of Crane radiant baseboard heating. It gives unobstructed wall area. And it also keeps temperatures more even.

It's one of the many ideas presented in Crane's new Sketchbook of Ideas, an important part of Crane's new service to builders of homes. You can use this remarkable book—with its illustrations and layouts of forty-six bathrooms, kitchens and utility rooms—to help your customers visualize new room ideas.

And if you want further information on any room in the Sketchbook, we can furnish specific suggestions for room arrangements and for decorating.

Ask your Crane Branch or Crane Wholesaler for details on this service.

COME TO CRANE FOR IDEAS

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GENERAL OFFICES: 836 SOUTH MICHIGAN AVE., CHICAGO 5

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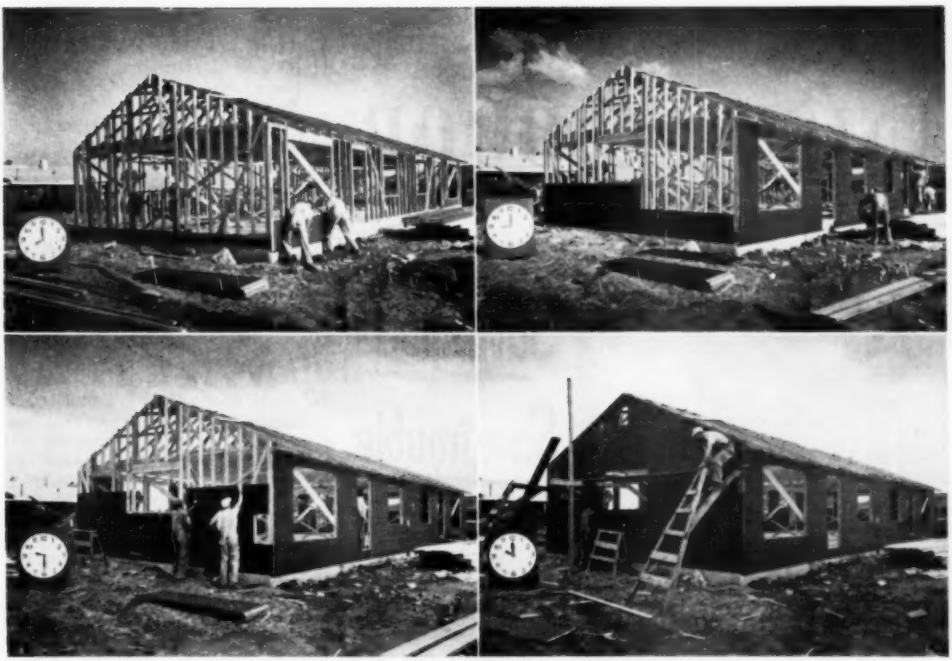
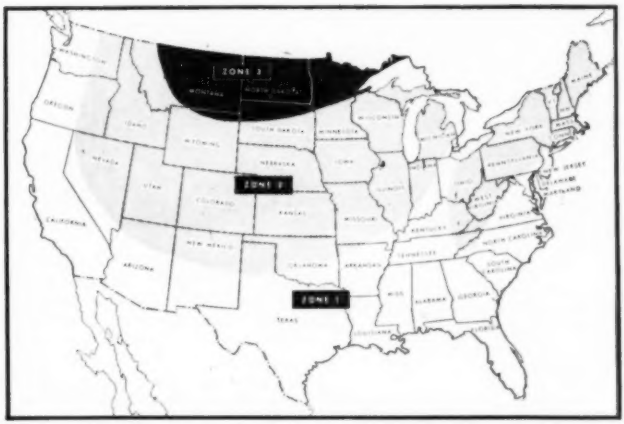


Two-hour operation sequence, indicating the speed at which gypsum sheathing can be applied to the framework of a house. In one hour's time, over half of the material had been put in place by the 4-man crew. By 10:00 o'clock, the complete sheathing operation had been finished

Gypsum Sheathing Observes 25th Anniversary



Three-zone map showing regions where gypsum sheathing may be used to meet minimum FHA heat loss requirements in various parts of the country. Gypsum sheathing costs are within 5¼-7¼ cents per square foot according to zone location

OCTOBER has been marked by the Gypsum Association as the "silver anniversary" month for gypsum sheathing. To call further emphasis to the impetus which this material has given to the construction field in the past quarter of a century, gypsum producers will sponsor nationwide promotions on behalf of gypsum sheathing, stressing its economy, speed of application, strength, durability, as well as its qualities of protection against fire, water and wind.

A significant project stressing the material's speed of application was recently undertaken in Chicago. Joseph E. Merrion, local builder, and a past president of the National Association of Home Builders, cooperated with the Gypsum Association on a time study application of gypsum sheathing. Merrion furnished a crew of four carpenters who began at 8:00 A.M. to sheathe a duplex, ranch-type

(*Continued on page 214*)

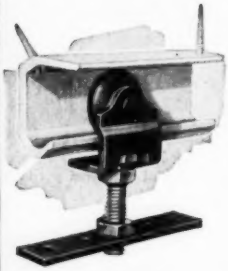
Richards-Wilcox

VANISHING DOOR

HARDWARE

Save space

Save trouble



SILVER STREAK R-W No. 1019 Vanishing Door Hangers and Aluminum Track

The trend is to small homes today. And with this trend comes the necessity of utilizing every available inch of space. That's where the Richards-Wilcox Vanishing Door Hardware comes in. Specially designed for thin wall construction, noiseless operation and easy installation, they help make a room livable from wall to wall. R-W Silver Streak Vanishing Door Hangers and Aluminum Track are constructed for flexibility—for use on single or parallel wardrobe doors, or for sliding doors in any room.

Check these important points!

- Four types of hangers to accommodate various size doors and building requirements.
- Adapted to thin walls to save space and reduce building costs.
- No interference with room furnishings or decorations.
- Tight fit of door to floor avoids drafts, loss of heat.
- Adapted to single sliding and parallel sliding house doors.

* * *

For more information, contact our nearest office or request one of our illustrated folders describing in detail the uses and advantages of SILVER STREAK.

1880 RICHARDS WILCOX R-W AURORA 1952 OVER 72 YEARS

Richards-Wilcox Mfg. Co.

A PRODUCT FOR ANY DOOR THAT SLIDES

AURORA, ILLINOIS, U. S. A. • Branches in all principal cities

(*Continued from page 213*)

home on Chicago's southwest side. The project was carried out under the eyes of Merrion and E. C. Mahoney, president of the Chicago Metropolitan Home Builders Association, who "refereed" the job and certified that it was done as reported in the picture sequence presented here.

The carpenters are shown beginning to apply the gypsum sheathing at 8:00 A.M. A similar two-man team, not visible in the picture, is working on the opposite end of the building. Each carpenter did his own cutting, scoring and snapping the gypsum sheathing panels, as required for fitting them into place.

At nine o'clock, one hour later, the end wall of the structure was completely sheathed, the side wall (right foreground) was nearly finished, and work had begun on the near end wall.

The application of gypsum sheathing had reached the stage indicated by 9:30 A.M., only one and one-half hours from the time the carpenters began their work. Note that the gypsum panels, which can be quickly scored and snapped to the required size, are fitted around the window and door openings.

By 9:45 A.M., the teamwork of the crew had begun to show tangible results. While one carpenter on the scaffold measured the sizes of boards needed, and applied the gypsum sheathing, his partner on the ground would score and snap the panels to size on instructions from his mate overhead. By 10:00 o'clock, two hours from the time the project was begun, the entire duplex structure was sheathed with gypsum board. Carpenters are shown dismantling the scaffold and adding a few finishing touches.

Project Specifications

The time study project disclosed that the wall and gables area of the structure comprised 1,559 square feet. There were 340 square feet of window and door openings in the walls. The net wall area to be sheathed, therefore, was 1,219 square feet. Seventy-nine gypsum sheathing panels were utilized for the job, or 1,264 square feet. The total waste amounted to only 45 square feet, or 3.56 per cent of the total.

The structure was sheathed in eight man hours; in other words, 1,219 square feet of gypsum sheathing can be applied in one eight-hour man-day. In the Chicago market, carpenters receive $3 per hour. Thus, the labor cost was $24. The material cost of the sheathing was $68.25 (1,264 sq. ft. x $.054 per sq. ft.). Therefore, the total cost of sheathing the 2-bedroom unit, duplex ranch

(*Continued on page 216*)

Let's talk shop about G-P Hardwood Plywoods

Do you think of hardwoods as a luxury material? Do you know that Georgia-Pacific Hardwood Plywood—genuine hardwood paneling—can be used at prices comparable to any other types of decorative paneling?

For example, G-P Crownply, the decorative hardwood paneling, is a finished wall—no wallboard needed! And it's guaranteed for the life of the house. The first cost is the last.

Hardwood plywood, used as exterior sheathing, roof decking and sub-flooring, is comparable in cost to any competitive materials . . . but you get the added strength and ruggedness of hardwoods.

G-P Crownply, for decorative use in Red Gum, Sap Gum, Poplar, Tupelo, Magnolia, Oak, Mahogany, etc.

G-P Crown-bord, is for cut-ups and shop work.

G-P Plysheet, general utility grade for sheathing, sub-flooring and shop work.

Georgia-Pacific Hardwood Plywoods, manufactured at our big, new Savannah plant, are checked for quality at every stage of production . . . bonded with resin glues on hot plate presses . . . and specially processed for greater stability.

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Reduces Building Time
Comes Packaged in Carton

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EASY HOUSEKEEPING

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FLEETLITE double hung windows on each side of FLEETLITE matching picture window.

Double windows weather stripped with pile mohair give most complete protection against winter cold, summer heat or dust storms.

Block rain, adjust air flow for inside pleasure by centering the two middle sash.

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AMERICA'S *finest* WINDOW

MADE BY . . .

As advertised in House Beautiful, House and Garden, Small Homes Guide, American Builder, Practical Builder and Magazine of Building.

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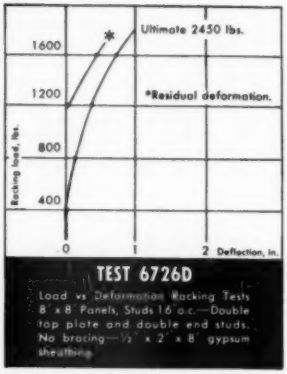

Results of Illinois Institute of Technology laboratory tests indicate the strength of gypsum sheathing on wall frames made of 2x4 double-end studs, 16" o.c., with double-end top plates

(*Continued from page 214*)

style house was $92.25. Attention is called to the fact that under recent FHA rulings, building paper is not required when gypsum sheathing is employed.

Meets FHA Requirements

The map on page 213 was prepared by The Gypsum Association in order to show builders how gypsum sheathing may be used to meet minimum FHA heat loss ("U" value) requirements in different sections of the United States. Zone demarcations are stated to be approximate.

In Zone I on the map, where heat requirements are relatively low, half-inch gypsum sheathing can be used without additional insulation, giving a "U" value of .31 BTU's. The cost of gypsum sheathing in this zone ranges from about 5¼ to 6 cents per square foot.

In Zone II, gypsum sheathing, in combination with foilbacked board (lath or wallboard) gives a "U" value of .22 BTU's, below the FHA minimum requirement. The sheathing cost is about the same as in Zone I. Cost of foil on lath or wallboard averages about 1¼ cents per square foot, thus the gypsum sheathing-foil system costs around 6½ to 7¼ cents per square foot on an over-all zone basis.

In Zone III, gypsum sheathing and wallboard or gypsum lath and plaster with mineral wool batts or blankets gives a "U" value more than meeting FHA minimum standards. The costs are about 6 cents per square foot for sheathing, plus the material and labor costs for wool, which are around 6½ or 7 cents, depending upon wool thickness. Insulating wool footage required is only from two-thirds to three-fourths of the sheathed area.

That important

FIRST IMPRESSION

Reinforce the favorable "front-door effect" of a Sargent "7600" Integralock on Customers and Prospects

—PLAY UP THE LOCK WITH THE SENTRY BOLT!

First impressions—your teacher wrote on the blackboard—*are lasting ones*. It's true. And it's why the Sargent "7600" Integralock line is important to *you*.

For the Sargent "7600" Integralock—particularly the lock that features the famous, nationally advertised Sentry Bolt—makes a deep and favorable impression *on your customers*. Starts right at the front door, too. And maintains that favorable impression through the building and through the years.

See how the Sargent "7600" Integralock creates the impression it does:

- Look at its well-proportioned man-size escutcheon and knob. Provides the substantial appearance and modern key-in-knob design that people expect for an impressive front entrance.
- Handsome, *enduring* appearance, too — cold forged or wrought brass, bronze or alumilited aluminum finish.
- Above all, there's the obvious *strength* and security of the husky, extruded brass Sentry Bolt.
- Add to this the breakable shear pin that prevents forcing of the handle—yet permits key operation. Pin easily replaced.

For homes, hotels, schools, offices

Interior locks in the Sargent "7600" line include locks with inside turn levers, push-button stops and plain latch action. It's a full line, with locks for bathrooms, bedrooms, and closets; for hotel rooms, utility rooms and office rooms and for classrooms in schools.

The Sargent "7600" Integralock line is well designed, well made. Years of experience enable us to build many years of trouble-free wear into the "7600" locks. Years of user-satisfaction have built for us a reputation that your customers readily recognize.

For full information about the Sargent Integralock "7600" line, write your supplier or us. Dept. 5K.

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SAWHORSE BRACKETS

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Set Up or Knocked Down in a Jiffy

Use 2 x 4's for legs, and a 2 x 4, 2 x 6, 2 x 8, 2 x 10, or 2 x 12 for the crossbar.

Easy to Move from job to job

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Now you can have a rugged, sturdy sawhorse whenever and wherever you need it. No longer is it necessary to carry a big, cumbersome sawhorse from place to place.

A set of Jiffy Brackets and five pieces of 2 x 4 make a sawhorse any time anywhere. Put together or knocked down in a jiffy.

For sale in hardware and building supply stores everywhere. Order direct if your dealer cannot supply you.

GRAND HAVEN STAMPED PRODUCTS CO., Grand Haven, Mich.

PRECISION

the only attic stairway equipped with

ROLLER BEARINGS

Life time, factory packed **ROLLER BEARINGS** make raising and lowering stairway practically effortless.

Precision Parts Corporation, not content with the smoothest and easiest operating stairway on the market, equipped their Precision Folding Stairway with roller bearings for still smoother and easier operation. Actuated by counterweights which operate on these bearings the stairway is practically 100% free of friction and all but raises and lowers itself.

OTHER OUTSTANDING FEATURES:

Constructed of No. 1 kiln dried poplar. Heavy cast aluminum alloy brackets, rocker arms and hinges. Composition safety treads on steps. Door panel insulated with Cellufoam. Requires no attic space. Accepted by F.H.A. everywhere.

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...When They See The New IN-SWINGING Etling* WINDOW

When it's time to build, it's the **Housewife** that buys. And, work-saving conveniences are what the modern home-maker wants most in her new home. That's why the Etling Window plays an important part in the merchandising plans of aggressive lumber dealers . . . because

The Etling Window Swings In For Easy Cleaning

No other window saves the housewife so much time and work . . . turns bothersome window washing into a quick, simple operation. Just press a tab and both sash swing into the home within easy reach. Open or closed, both sash slide up and down, hang suspended at any height.

- **Eye-Catching Dealer Display Model**
- **Complete Packaged Unit, Ready to Install**
- **11 Attractive Styles • Competitively Priced • Certified Kiln-Dried California Redwood.**

The Etling Picture Window is available in a wide choice of styles. It features Thermopane, Twindow or ¼-inch plate glass center section, flanked by in-swinging sash. Outside glass area can be easily reached from inside.

THE Etling WINDOW

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I want to know more about the Etling Window.

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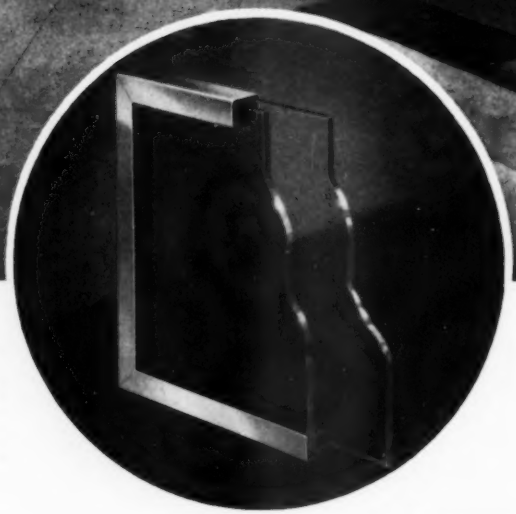
For jobs that have that *quality* Pittsburgh Glass



A WINDOW WALL OF TWINDOW—Pittsburgh's window with built-in insulation—with fast-growing-in-popularity sliding doors, like this one, also glazed with Twindow, adds a lot of glamour to the modern home. Twindow has nearly twice the insulating value of conventional windows. It's made up of two panes of Polished Plate Glass, with a sealed-in air space between. That means excellent vision, elimination of downdrafts, and under normal conditions, less tendency for condensation to form. And for additional safeguard against solar heat and glare, Solex-Twindow is ideal. In these units, the outer pane is green tint Solex, the inner Plate Glass and the entire unit is enclosed in a stainless steel frame—as shown by the cut-away view here. Architect: Frederic Barienbrock, Santa Monica, California.

appeal—

can help you!

CARRARA bespeaks quality, beauty, luxury. It's a *permanent* material; once installed it lasts indefinitely. To any home you build or remodel, it brings an extra measure of value that's easy to see. Carrara Glass is unexcelled for the walls of bathrooms, powder rooms and kitchens. Its depth of color and sparkle appeal to everyone. And it's extremely easy to keep clean; a damp cloth is all that's required. Carrara is available in ten attractive colors to satisfy any decorative need.

FULL-LENGTH Pittsburgh Door Mirrors are a must in any home. People demand them. They make your homes more appealing to prospective buyers. And in modernization work, they add to your reputation as a fine builder. Pittsburgh Door Mirrors are really *full length*. They're 68 inches high—16, 18, 20, 22, or 24 inches wide. Easily installed, these sizes fit more than 90% of all millwork interior doors.

IN BEDROOM, living room, dining room, den, bathroom—you can't beat a clear Plate Glass mirror to give life, zest and greater expansiveness. That's especially so when you install a *Pittsburgh* wall mirror. It doubles enjoyment by reflecting all the color, beauty and movement in the room. It has the tendency to widen or lengthen a room, as desired. And the new Pittsburgh Mantel Mirror Brackets, which come packed with each custom-made mirror you order, cut on-the-job labor, make installation easy. Find out about these ingenious brackets from your local Pittsburgh dealer.

A little extra glass means a lot of extra charm and buy-appeal, regardless of the style or price range of the homes you build or remodel.

Build it better with **Pittsburgh Glass**

See Sweet's Builders Catalog for detailed information on Pittsburgh Plate Glass Company products.

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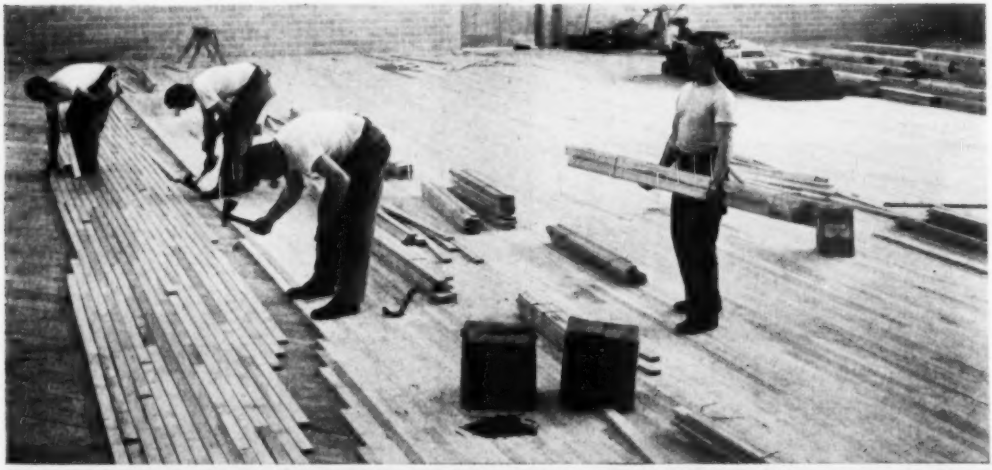
Laytite MFMA Northern Maple, Birch and Oak Flooring. T&G or square edge, in bundles or cartons. Also 3rd grade Maple Flooring 2' and longer. Also Block and continuous strip.



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For Economy of Maintenance During Long Life

One hundred and thirty-two HOPE'S STEEL CASEMENT WINDOWS were used in this handsome Motel. To maintain them, they require only infrequent painting.

The extra good-looks they add to any building; their ease of operation and more complete control of ventilation, with extra security . . . were also important factors in their selection.

Hope's Windows will add sales appeal and satisfaction to the buildings you build.

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Forty years of manufacturing experience and, recently, construction of a big new plant at Addison, Illinois, just west of Chicago, enable us to produce those quality Paine hanging and fastening devices in quantities to satisfy all your demands.

Accurately perforated Paine hanger iron, with milled, burr-free edges, has a thousand uses. It comes in five widths and gauges, in ten foot straight lengths and ten foot coils. A compact, eye-catching Merchandiser steps up sales of packaged coils for retailers — and provides handy storage for the many contractors who buy it complete to insure having Paine hanger iron always on hand.

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Spring Wing Toggle Bolts
Expansion Anchors
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Pipe Hooks and Straps
Hanger Iron, perforated
Expansion Shells
Star Drills
Malleable Shields
Special Hanging and Fastening Devices

Backsplash Integral Part Of Plastic Counter Top

A plastic counter top for kitchen work surfaces and bathroom vanities, which is revolutionary in appearance and features, has now been made available by the Chemical Department of the General Electric Company, Pittsfield, Mass.

The new product, which is labeled G-E Textolite Monotop plastics surfacing, boasts of a backsplash moulded as an integral part of the

Monotop on a six foot base cabinet with kitchen sink

counter top and a dripless front edge. The Monotop is being produced at General Electric's Coshocton, Ohio, plant.

In the manufacture of the Monotop, many tough plastic layers are moulded into one homogenous slab by heat and pressure. The resulting slab is three times the thickness of conventional flat sheet plastic surfacing. Because of the added strength, it is not necessary to bond plywood to the back of surfacing for support. A batten strip framing is all that is necessary. The simple fabricating

Cross section of counter top giving dimensions of G.E. Monotop, also position of batten strips. These can be poplar, pine, or plywood

techniques required to produce finished counter tops make the high-pressure laminated Monotop ideal for large housing projects, as its fabrication can be set up on an assembly-line basis.

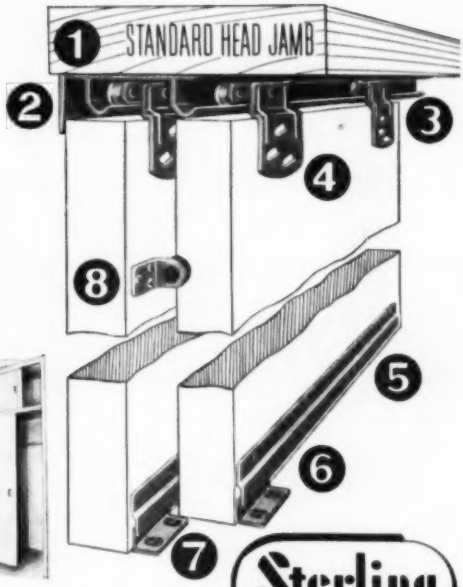
The Monotop is sold in standard six-foot lengths and is 25 inches wide. In fabricating a counter, the Monotop has to be sanded first in order that the batten strips can be glued to the underside. Corner sections are constructed by mitering two pieces of Monotop. Since a butt joint is necessary for making a running length of more than six feet, the practical solution to this problem was to make this joint at the sink

(*Continued on page 226*)

Here's Why

LEADING ARCHITECTS AND BUILDERS USE AND RECOMMEND

Sterling 600 SERIES SLIDING DOOR HARDWARE



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Saves Time! Saves Money! Easy to Install and Adjust!

1. **USE STANDARD DOOR FRAME.** No special header construction needed. No grooving!
2. **APRON CONCEALS HANGERS AND TRACK.** May be painted if desired. No extra trim necessary.
3. **ONLY ONE INCH HEADROOM REQUIRED.** No need for extra headroom for hardware.
4. **ADJUSTABLE HANGERS.** Slotted screw holes make it easy to plumb door with jamb.
5. **GUIDE STRIPS** eliminate troublesome grooving of doors. Not visible from the outside.
6. **DOOR GUIDES** can be installed after doors are hung. Slotted screw holes permit easy adjustment.
7. **NO TRACK ON THE FLOOR** to catch dust and dirt . . . floor is clear and clean at all times.
8. **DOOR STOP** keeps flush pull on rear door always accessible. Fingers can't get pinched.

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Sterling HARDWARE *Nationally Advertised*

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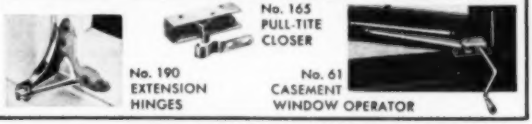
Read by ARCHITECTS, BUILDERS and HOME BUYERS

STERLING CASEMENT WINDOW HARDWARE



★ See our Catalog in SWEET'S Architectural File 18d/ST and Builders File 4e/ST

★ See our display at THE ARCHITECTS SAMPLES CORPORATION New York, New York

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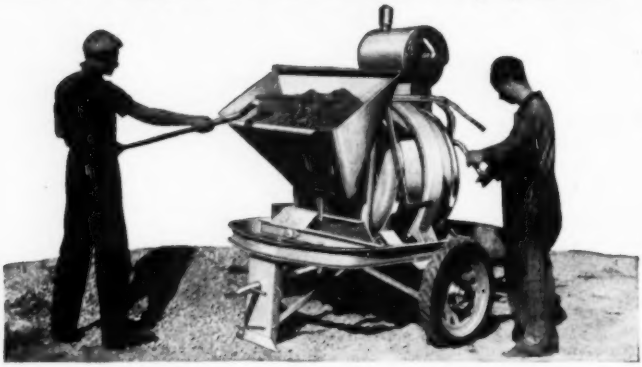
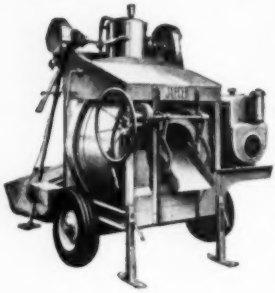
Get more work done for wages paid with Jaeger-ENGINEERED equipment





Jaeger 3½ S "Auto Loader": Mixes 12 to 15 more yds. of concrete a day because it can be loaded while previous batch is being mixed, then hopper automatically *shakes* load into drum in a flash. Jaeger engineered for long life. Machined steel drum tracks ride on car-wheel rollers. Automotive transmission.

65, 115 and 165 Mixers, with Jaeger "Skip Shaker" loader and "Dual Mix" drum, are fastest charging and discharging mixers built for bigger work.

3½ and 6½ Ft. Plaster-Mortar "Power Hoes": Real multi-blade pug mill mixing turns out smoother, even tempered material that's easier to spread or spray. Heavy gauge drums with Timken bearing shafts and leak-proof seals, bigger engines, automotive transmissions for long life, low upkeep.

Jaeger Hoister Tower: Speeds construction, cuts placing costs, eliminates cost of scaffolding. Quickly assembles on the ground to 37'—goes up under its own power. Add 10' extensions up to 67' with gin pole. Exclusive automatic safety device prevents platform from falling if cable breaks. Transport trailer attachment.

Jaeger Model 75 and 125 ft. Compressors give you up to 25% more air than others, to get more work done with the same men and tools.

Jaeger "Sure Prime" Pumps are compact, portable, yet have big capacity. Light 5100 and 9000 gph aluminum models, semi-steel pumps from 4000 to 240,000 gph. Recognized as leading line.

Write for catalogs on any of these machines or see your Jaeger distributor.

THE JAEGER MACHINE COMPANY

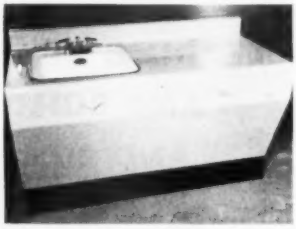
521 Dublin Ave., Columbus 16, Ohio

Distributors in 153 cities

(Continued from page 224)

bowl in order that there be a minimum of edge length to be fitted together.

The Monotop is available in five colors in G.E.'s cross-current design: red, blue, green, yellow, and gray. The melamine laminate used on the



Monotop bathroom vanity utilizing six foot length

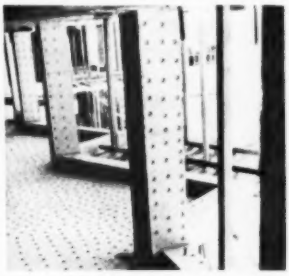
Monotop meets the recommendations made by the National Electrical Manufacturers Association for decorative materials. There is very little in normal everyday kitchen usage that will affect or dim the surface of the Monotop counter.

Courtesy General Electric Co., Pittsfield, Mass.

Device Keys Concrete For Direct Plaster Job

An elastic rubber device is attached to concrete forms to prepare concrete for direct plastering. Kifs (the rubber device) provides an undercut niche two inches in diameter at the bottom edge and 1⅝-inches in diameter at the opening. The depth of the undercut is ⅜ of an inch.

The device is nailed to the form with a standard galvanized roofing



nail with a ⅜-inch head. Upon withdrawal of the form the unit collapses leaving the undercut.

Horizontal spacing of the niches is six inches in both directions while overhead spacing is eight inches in both directions. The manufacturer claims that only enough Kifs are needed to prepare a set of forms. They can be used in all form shifts without further preparation.

The rubber device is manufactured by Buffalo Products, Inc., Dept. AB, 304 Washington Loan and Trust Bldg., Washington, D. C.

BREWSTER MANOR HOMES FEATURE RUSCO Galvanized Steel PRIME WINDOWS

BREWSTER *Manor* — *Living . . . In Country Style*

R.F.D. #1 HICKSVILLE, N. Y. HICKSVILLE 3-1774

Every prospect for a new home wants the best he can afford. In our split-level Brewster Manor Homes and our popular-priced Knickerbocker Homes we are providing for every creature comfort -- every modern desire for better, easier living. Rusco galvanized steel Prime Windows embody the features that meet our rigid specifications. With Rusco Prime Windows we can offer both a prime window and a companion insulating window in one permanently installed unit.

Features such as Magicpanel Ventilation, no screens or storm sash to change, glass and screen panels which are removable from the inside, are tremendously popular conveniences that help clinch many a sale. Without any qualification whatsoever, we wholeheartedly recommend Rusco Prime Windows as a must for modern home living today.

LEE SCHOENFIELD

ALEXANDER MUSS

HICKSVILLE, LONG ISLAND, BUILDER SAYS: "We Wholeheartedly Recommend Rusco Prime Windows As Best For The Home Of Today"...

Rusco Prime Windows with insulating sash keep Brewster Manor homes cooler in summer, warmer in winter . . . provide rainproof, draft-free ventilation regardless of weather or season.

1. Rusco Prime Window, with glass and screen panels removed, is taken from stockpile . . .

2. . . . placed in stud opening and plumbed . . .

3. . . . nailed to studs . . .

4. . . . Glass and screen panels slipped into slides

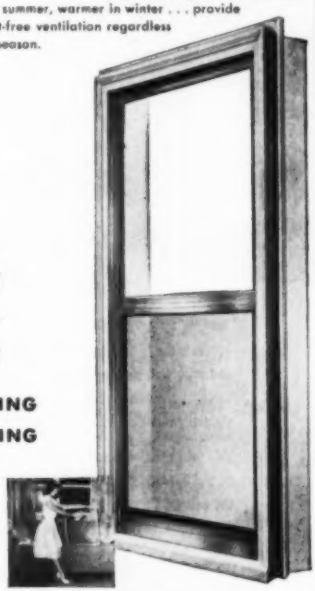
5. . . . and in less than 5 minutes the fully-installed window is ready for service!

A Fully Pre-Assembled Window Unit

Factory-Painted, Hardware Attached—
All Ready to Install in Window Opening!

GLASS • SCREEN • BUILT-IN WEATHERSTRIPPING INSULATING SASH* • WOOD OR METAL CASING . . . OR STEEL FINS

*OPTIONAL



Glass and Screen Inserts easily removed from inside for convenience in cleaning. The Rusco removable sash feature has tremendous appeal as a convenience and safety feature.

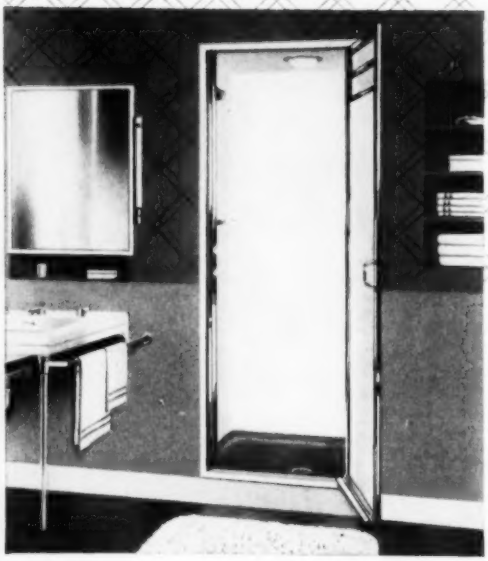
RUSCO Galvanized Steel PRIME WINDOW

VERTICAL SLIDE

THE F. C. RUSSELL COMPANY • CLEVELAND 1, OHIO • DEPT. 7-AB102
IN CANADA: TORONTO 13, ONTARIO

save labor

build in more value with FIAT "package" showers



Illustrated: The CADET, a built in Fiat Shower that does not look like steel, but becomes a beautiful part of the bathroom by concealing joint between wall and cabinet stiles.

See Sweets:

25c/ft Architectural

7b/ft Builders

or write for catalog and prices.

8% to 10% of the average home cost is in the plumbing contract—much of that goes into the bathroom! Now you can reduce that percentage and still deliver adequate and attractive bathing facilities by utilizing FIAT "package" showers. FIAT shower cabinets are designed to meet every architectural requirement, and always cost substantially less than built-on-the-job showers.

You save time, cost and confusion because a FIAT shower may be installed complete by a single tradesman! The plumber quickly assembles the FIAT cabinet, and fits it to the precast Terrazzo Receptor right while he is setting the drain. Shower head and valves (included in package) are connected at the same time. Sound simple? It really is!

MORE ARCHITECTS PREFER FIAT SHOWERS because:

all FIAT cabinets are rust-proofed—always made of bonderized, galvanized steel; never affected by building settlement; don't depend on mortar joints for water-tightness; Terrazzo Receptors are permanently leakproof—eliminates lead pan and double drainage arrangements; deliver more quality for less money.

FIAT METAL MANUFACTURING COMPANY

Three Complete Plants—Economy • Convenience • Service

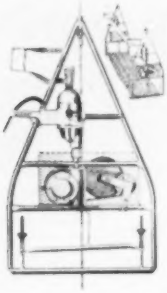
Long Island City 1, New York — Franklin Park, Ill. (Chicago suburb) — Los Angeles 63, California

In Canada: Fiat Products are made by Porcelain and Metal Products, Ltd., Orillia, Ontario

Swing Stirrup Powered By Heavy-Duty Electric Drill

Built around a worm gear and pinion that will not move unless power is applied, the all-metal stirrup for swing scaffolds uses a heavy duty electric drill.

The unit will carry 700 pounds over and above the weight of the



stirrup. Speed of travel is 16 feet per minute. Staging up to 24 inches wide can be made with the device.

Seventy-five feet of ⅜-inch cable is furnished with each unit. A safety clamp at the upper ferrule is automatically actuated to prevent accidental descent. A bracket for the guard rail is provided with the machine.

The electric drill can be quickly removed for use on the job if it is so needed. The manufacturer is Bil-Jax, Inc., Dept. AB, 100 Wyse Road, Archbold, Ohio.

Dressing Up Entrances

A number of interesting treatments are used by Realty Developers of Milwaukee, an affiliate of the A. C. Sehrt Contracting Co., to dress up entrances. Here, a decorative plant in dark green, cut from Masonite Tempered Presdwood is applied to a panel of the same material. The hardboard is also used for porch soffit and gable ends; and similarly decorated panels are sometimes used adjacent to windows to break up the solid brick

Nobody gets in a jam

WITH THIS DOOR

But *nobody*. Not the man who buys the Weldwood® Staved Lumber Core Door installed in the building you turn over to him. And certainly not the smart contractor or speculative builder who used it to build up his own reputation.

And build a reputation is what he does when every structure he puts up makes a good impression right at the front door. And why shouldn't it? Look what this door offers him:

1. The Weldwood Staved Lumber Core Door is made with the finest hardwood face veneers available in any stock flush door. You can choose from many popular woods.
2. It is moderately priced and extremely durable, virtually warp-free.
3. It's adaptable to custom-made lights and louvres and can be hung from either side.
4. Hardware goes on like a song—quickly, easily, permanently.
5. The bonding is 100 percent waterproof phenolic glue. So the Weldwood Staved Lumber Core Door serves efficiently in exterior as well as interior use.
6. A full line of sizes.

And last, but far from least: this Weldwood door is obtainable with faces of richly figured hardwood veneers—all the popular species. You can easily see why smart builders choose it for stores, banks, office buildings, hospitals and fine homes.

You certainly give yourself and your jobs a break when you use Weldwood Staved Lumber Core Doors.

United States Plywood Corporation carries the most complete line of flush doors on the market, including the famous Weldwood Fire Doors, Weldwood Stay-Strate Doors, Weldwood Staved Lumber Core Flush Doors and Mengel Solid Core and Hollow Core Flush Doors, 1⅜" and 1¾" with a variety of both foreign and domestic face veneers.

WELDWOOD® FLUSH DOORS

Manufactured and distributed by

UNITED STATES PLYWOOD CORPORATION

World's Largest Plywood Organization

55 West 44th Street, New York 36, N. Y.

Branches in Principal Cities • Distributing Units in Chief Trading Areas
Dealers Everywhere

HOLT Floor Sander

Keeps Earning Money FOR YOU

DEMOUNTABLE DRUM CUSHION CHANGES IN MINUTES

Why let damaged drum cushions tie-up floor sanding 12 to 24 hours? HOLT demountable drum cushion (patented) can be replaced in minutes by the operator right on the job . . . so sanding goes on almost without interruption.

You cover more floor, too, with HOLT high-speed cutting. Sure-grip clamps keep paper "in." Self-adjusting, double belts stay tight. Correct design and dynamic balance eliminate chatter and vibration . . . assure smooth, craftsman-like work.

Do floor jobs the easy, time-saving HOLT way. For further information and name of nearest dealer, write your name and address in margin of this ad and mail TODAY.

HOLT MANUFACTURING COMPANY

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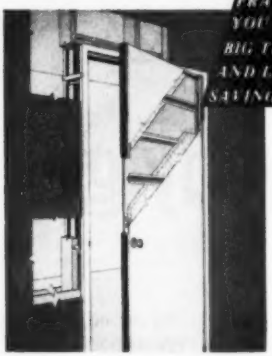
3

HOW TO REALLY SPEED DOOR AND FRAME INSTALLATION

VMP STEEL FRAMES GIVE YOU THREE BIG TIME AND LABOR SAVINGS



1. Pre-welded into complete one-piece assembly, VMP *steel* frames require no on-the-site assembly.
2. Mortises in doors and frames for locksets pre-cut at factory — no on-the-site mortising.
3. VMP flush metal doors exactly fit frames for perfect operation — no on-the-site cutting or fitting.

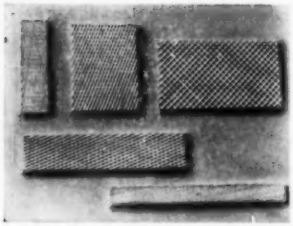
Why even consider using wood or any other door and frame when you get these three big installation cost cuts with VMP metal doors and frames. How much more satisfied you and your customers will be! For VMP steel frames never warp, sag, or crack. Never change dimension. Give longest, most dependable service. No customer complaints. No costly call-backs to repair doors or frames. And they're fireproof, too!

Order VMP metal doors and frames for plaster wall, masonry wall and dry wall construction, and cut your door and frame installation costs — way down!

FREE: Architect's and builder's manual illustrated with two-color isometric drawings gives valuable door and frame cost cutting data. Send for your personal copy — yours without charge. Just write "VMP Steel Frames" on your letterhead or card, and mail today to Dept AB-10.

VIRGINIA METAL PRODUCTS CORPORATION

1112 First National Bank Building
Pittsburgh 22, Pa.



Concrete form can be adjusted to any of the proportions shown and is said to be re-usable up to 100 times

Concrete Forms that Adjust to the Job

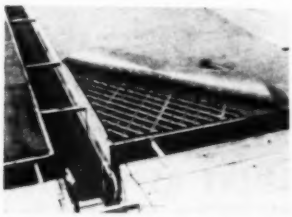
An expansible concrete form built on a "lazy tongs" principle to permit adaptation of panel size to a variety of dimensions is now being distributed in the United States by the Kurt Orban Co., New York City.

The form, called "Rubora," has been used extensively in Europe on cast-in-place concrete jobs, the company said, and can be re-used up to 100 times.

The patented Rubora construction is based on wooden struts which are latticed together and hinged at the intersection points. After adjustment at the job site to the desired panel dimensions, the form is covered with building paper for rough finished work, or with a concrete liner of ⅛-inch composition board for a smooth finish. After stripping off the tacked-on board or paper, the form is clean and ready for re-use.

A representative Rubora form, designated as Type A, can be expanded to cover an area of 30 square feet. This form can be adjusted to any set of dimensions between 5 feet, 8 inches by 1 foot, 4 inches, and 10 feet, 4 inches by 9 inches. Its weight is 50 pounds.

For transportation and storage, the forms compress to about one-fourth of their maximum area. Other advantages cited are that the forms can be curved for forming circular walls and that the crossed beam action of the struts gives additional structural support.

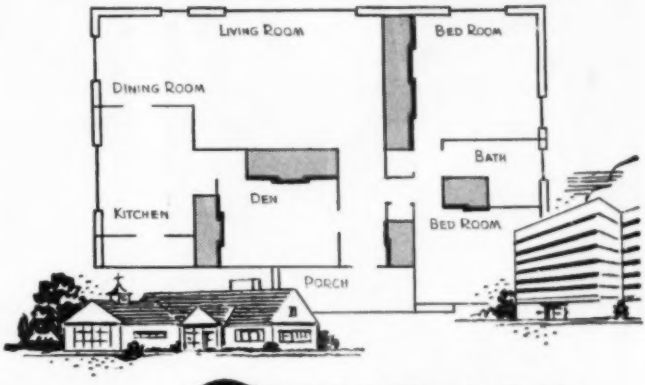


After adjustment to size, the Rubora form is covered with building paper or composition board before concrete is poured

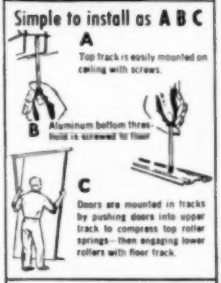
All This Storage Space

at an actual Savings

in construction costs!



Simple to install as A B C



A Top track is easily mounted on ceiling with screws.

B Aluminum bottom threshold is screwed to floor

C Doors are mounted in tracks by pushing doors into upper track to compress top roller springs—then engaging lower rollers with floor track.

HAVE YOU SEEN LAMIDALL®

• Here's another Woodall Product to add beauty and economy to your buildings. It's the new genuine plastic laminate for walls and top surfaces, in ⅛" thick panels—low in cost—easy to install—easy to maintain. Write for Free Samples and Literature.

GLIDE-ALL *Sliding Doors*

PROVEN in hundreds of large apartments—in hundreds of thousands of small, medium and luxurious homes!

Architects and builders throughout the nation are adding sales appeal and saving money with beautiful, modern Glide-All Sliding Doors.

There are many reasons why Glide-All is the preferred sliding door. *First,* the low initial cost. *Second,* the ease and simplicity of installation combined with a substantial savings in construction costs. *Third,* Glide-All's floor-to-ceiling height allows extra storage space, eliminates studding, framing and plastering. *Fourth,* the smooth, quiet, dependable operation for years of trouble-free service. *Fifth,* Glide-All's decorative versatility. The attractive Tempered Presdwood finish may be left natural or may be wallpapered, painted or finished to harmonize with any room decor.

Get the facts on Glide-All Sliding Doors today. Write for A.I.A. Bulletin No. 17-D, containing complete details and specifications.

Glide-All Sliding Doors are a product of

WOODALL INDUSTRIES INC.

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and are manufactured in the following Woodall Plants:
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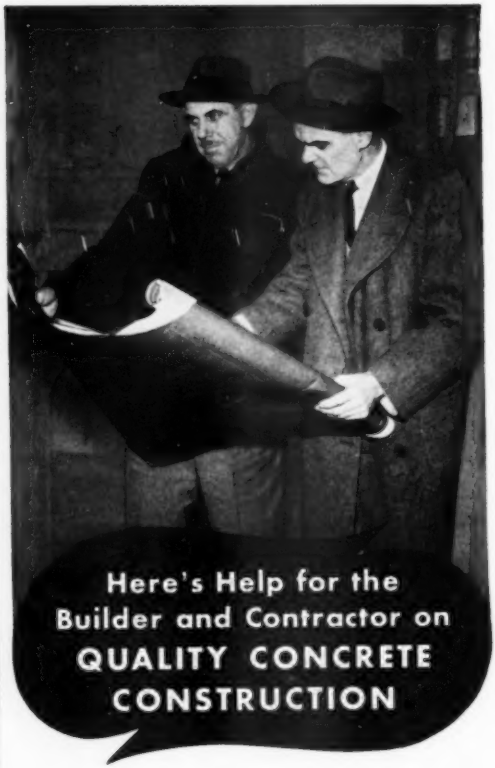


WHEN YOU encounter problems in building concrete factories, schools, small hospitals, stores, restaurants, theaters, farm buildings, foundations, piers, retaining walls and other specialized structures you will find real help in the services available from the Portland Cement Association.

Every activity of the Portland Cement Association—engineering field service, scientific research, technical service, distribution of informative literature—is designed to help you obtain better concrete construction. Remember, there's no excuse for poor concrete work. The principles and procedures of quality concrete construction are simple and easy to follow.

Concrete has many structural advantages—great strength, durability, and unusual resistance to fire, weather, rats and termites. It gives *low-annual-cost* construction, the true measure of economy. Write for design and construction data, available free on request—distributed only in the United States and Canada.

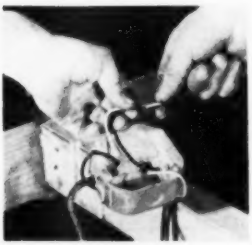
PORTLAND CEMENT ASSOCIATION
Dept. 10-3, 33 W. Grand Ave., Chicago 10, Ill.

A national organization to improve and extend the uses of portland cement and concrete . . . through scientific research and engineering field work

Electric Spring Connector Can't Shake Loose

A unique coil spring connector designed for the electrical field provides a shake resistant, high tension grip on spliced wires. Designated the Scothlok the unit is used in single or multi-strand wires up to gauge 10.

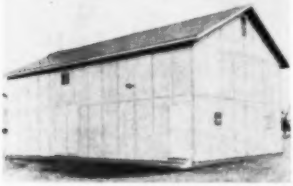
Made of zinc-plated steel wire in the form of a tapered spring, the lubricated connector is screwed on the stripped ends of the wires with the fingers. A notched turning stem pro-



vides leverage during the application and is snapped off leaving a neat slice with no sharp ends. The small diameter of the connector adds but a fraction of an inch to the diameter of the wires. The small unit is valuable for joining wires in crowded junction boxes.

The inexpensive device will be sold through electrical wholesalers, stated the manufacturer. The Minnesota Mining and Manufacturing Co., Dept. AB, 900 Fauquier St., St. Paul 6, Minn.

Rejuvenation of a Barn



Here's a picture story of the rejuvenation of a 70-year-old barn near Monica, Illinois, which, before remodeling, gave the impression of being hopelessly dilapidated. The framing lumber was still sound, however, so the owner had the building straightened. He then covered the sidewalls with large sheets of asbestos-cement board.

Cut INSTALLATION COST

★ Save Time!
★ Save Money!

with

SONOAIRDUCT®
PAT. APP. FOR

LAMINATED FIBRE DUCT
For Loop, Radial and Lateral

Perimeter Heating

SONOAIRDUCT—the low cost laminated fibre duct, is ruggedly constructed and will withstand temperatures as high as 350 degrees F. indefinitely. SONOAIRDUCT has been widely job-tested and is accepted by architects and contractors as an improved method that saves time, money and labor. Light weight, long lengths—up to 24' long allows easy leveling, handling and fitting. Available in 2" to 24" I.D. Saws easier than wood and fits all standard metal bends, elbows, T's and registers.

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Yes, it's quite a strain on the cord that weights windows. That's why, in the long run, it pays to use and recommend the *best!*

SPOT® SASH CORD

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WEAR
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Look for the colored spots, our registered trade-mark, your guarantee of quality. For new installations or replacements, use and recommend wear-resistant, long-lasting Spot Sash Cord.

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PRODUCT FOR LASTING ECONOMY

Samson
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BOSTON 10, MASSACHUSETTS

"BUT, MISSUS,—THAT ISN'T WHAT USUALLY IS MEANT BY A PICTURE WINDOW!"

Related Mathematics for Carpenters, by L. S. Chamberlain. American Technical Society, Chicago, 1952.

A workbook on the fundamentals of mathematics required for carpentry. The book is aimed at two groups: trainees in carpentry, and practising builders who would like to study mathematics as applied to their everyday problems. The book puts abstract math into hammer-and-saw reality. Beginning with a review of basic arithmetic, the author proceeds into algebra and geometry, all the while relating the instructional material to problems of determining roof pitches, lumber calculations and the like. The author was formerly instructor in related mathematics at the Chicago Vocational School.

Avoid jamb tensions with crooked walls—READY HUNG DOORS are adjustable for wall thickness and compensate for wall irregularities.

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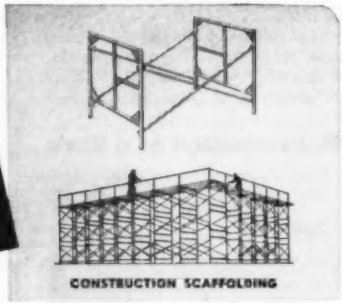
Ready Hung DOORS
PAT. NO. 2,489,029 OTHERS PEND.

THE NEW
DOOR AND FRAME
PACKAGED UNIT

READY HUNG DOOR CORP., DEPT. A
FORT WORTH, TEXAS

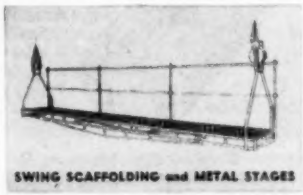
MEETS EVERY NEED!

BIL-JAX
Tubular Steel
SCAFFOLDING

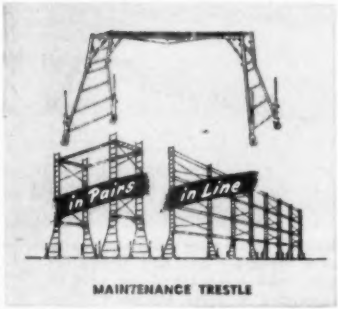


CONSTRUCTION SCAFFOLDING

No matter what scaffolding your work requires, Bil-Jax has it . . . fixed, rolling and swing type. Get maximum safety and satisfaction. Rent or buy. Distributors in principal cities.



SWING SCAFFOLDING and METAL STAGES



MAINTENANCE TRESTLE

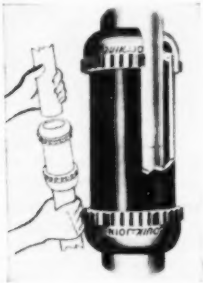
Write for FREE complete catalog. Address Dept. D-10

BIL-JAX, INC., Archbold, Ohio, U. S. A.

Device For Joining Pipe Latest in Plumbing Devices

A factory assembled pipe coupling can be installed in any piping system in less than 60 seconds. No thread cutting is required. Pipes are inserted into the ends of the Quik-Joint coupling and lock nuts wrenched to the desired tightness.

The result is a tightly sealed but flexible joint capable of withstanding working pressures up to 2000 p.s.i. No castings are used. The body is of



pressure tested steel pipe having a greater wall thickness than the pipe to be joined. Lock nuts and gasket retainers are drawn from cold rolled steel. The compression rubber gasket comes in a number of formulae depending upon the application.

Units are available in sizes from ½ to 1½-inches as straight coupling, 90-degree, and 45-degree ells, welded and threaded adapters. Special lengths and bends to specifications are available from the manufacturer. Quik-Joint Manufacturing Co., Dept. AB, 469 E. 159th St., Harvey, Ill.

Financing to Top 1950 S & L Firms Report

Savings and loan associations throughout the country financed the construction or purchase of approximately 350,000 homes during the first six months of 1952, according to a recent report by Raleigh W. Greene, president of the National Savings and Loan League.

Total home financing by savings associations, including reconditioning, was more than $3 billion for this period, Greene estimated. He felt that this year's total would exceed the previous 1950 high of $5.2 billion for a twelve month period.

New Plant Started

Air Control Products, Inc., recently started construction of a new office and plant to be located in Coopersville, Michigan. The building will contain 55,000 square feet of floor space.

FREE

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ENOUGH LUMITE SCREENING FOR ONE WINDOW—SO *YOU* CAN *PROVE* ITS SUPERIORITY FOR *YOURSELF*

Did you know that Lumite saran screening is superior for every exterior use—that it cannot rust, pit, corrode, stain sills and sidewalls—that it never needs protective painting—that it's actually *stronger?* Prove it for itself.

We'll send you, *free*, enough Lumite to screen one double-hung window (size 2'0" by 3'2"). Frame it. Leave it up all Winter. Examine it and your sills in the Spring. You'll see why Lumite screencloth stands up even under severest conditions such as salt air and industrial acid fumes—why it's best to use on your houses.

Just fill in the coupon. Attach to your letterhead or enclose in your business envelope. You'll get your free Lumite screening promptly, together with a specification brochure.

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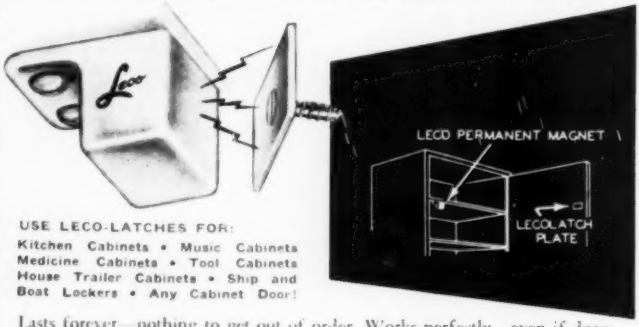

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Lasts forever—nothing to get out of order. Works perfectly—even if doors sag or warp. Doors open easily—without snap, noise or jerk. Holds door in place firmly, yet gently. Easily installed. Improves appearance.
NATIONALLY ADVERTISED—In Better Homes & Gardens, House Beautiful, Sunset, Popular Mechanics.
Adding Leco-Latches is the easy way to add extra sales appeal to that next new home you build!

For literature, prices and name of distributor, write

LABORATORY EQUIPMENT CORPORATION
ST. JOSEPH 15, MICHIGAN

Precast Concrete Seen Boon to Construction

Development of precast concrete was described as the greatest advancement in the building industry for 50 years by Roger H. Corbetta, chairman of the Concrete Industry Board, in a seminar on "Progress in Structural Design" at the recent American Institute of Architects convention in New York.

Corbetta challenged the architects to take full advantage of the possibilities of precast concrete in the design of modern houses, office buildings, institutions and industrial plants, "because of the economies that can be obtained through assembly line production of large segments of wall, floor, ceiling and roof areas." Precast concrete, he said, gives the architect complete freedom to obtain any color or texture desired.

Finishing Materials and Methods, by George A. Soderberg. McKnight & McKnight, Bloomington, Ill., 1952. $4.

This comprehensive and well-illustrated discussion is divided into two sections. Section one presents a full range of finishing types and applications appropriate to them. Highly practical and specific, section two is devoted to finishing methods, and gives information on a wide variety of finishing problems, from how to produce a bleached finish to how to inlay a walnut gunstock with silver.

STRAIGHT-LINE RECIPROCATING ACTION GUARANTEES SCRATCH-FREE FINISHES

14,400 SANDING STROKES PER MIN.
•
EASY ONE-HAND OPERATION
•
21 SQ. IN. SANDING SURFACE

Contractors and builders find this powerful, fast cutting Dremel Sander the perfect answer to finer finishes on drywall joints, plaster, doors, woodwork, siding and other exterior surfaces. Its straight-line sanding action leaves no marks, swirls or cross-grain scratches. Light weight, of only 5 lbs. and easy one-hand operation makes Model 2000 ideal for continuous use. Added stroke and extra power—plus 21 sq. in. of sanding surface—insure rapid production. Only 2 moving parts, never needs oiling, dustproof, overall size 3¾" x 4½" x 7", uses 110-120 V., A.C. Fully guaranteed. If your dealer cannot supply, send order direct to factory.

MODEL 2000 PRICE INCLUDES—this all-steel carrying case—also 25 asst'd. abrasive sheets and a sheepskin polishing pad.

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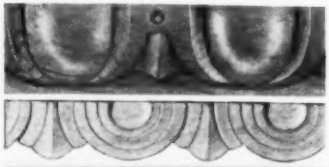
2414 18th Street Racine, Wis.



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designed to help the builder
SELL THE WOMAN!
for
FLUSH DOORS • CORNICES
CHAIR RAILS • WALL PANELS
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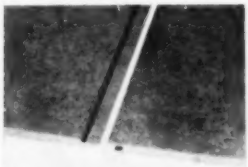
Write for illustrated catalog
BENDIX Manufacturing Co.
192 Lexington Avenue, New York 16

Hardboard Panels Have T & G Fit

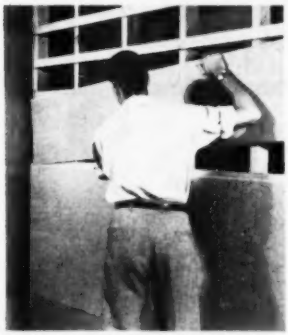
A natural wood color, tongue-and-groove hardboard panel, 16 inches wide by 8 feet long, has recently been introduced by Forest Fibre Products Co., Forest Grove, Ore. Until the introduction of these units, 4x8 foot hardboard panels have been the standard industry size. Due to their



Showing the 3/8 inch T & G joint of the 8-foot by 16-inch wide hardboard panels in natural wood color

narrow width and tongue-and-groove feature, these panels permit fast and easy application of wall paneling over studs, furring strips, or over old plaster walls. They can be applied either vertically or horizontally.

Since application is simple, ordinary tools can be used. The panels can be sawed, planed, or drilled, and can be either nailed, stapled, or glued in place. They can be curved for rounded corners or for special decorative effects. Panels are nailed or

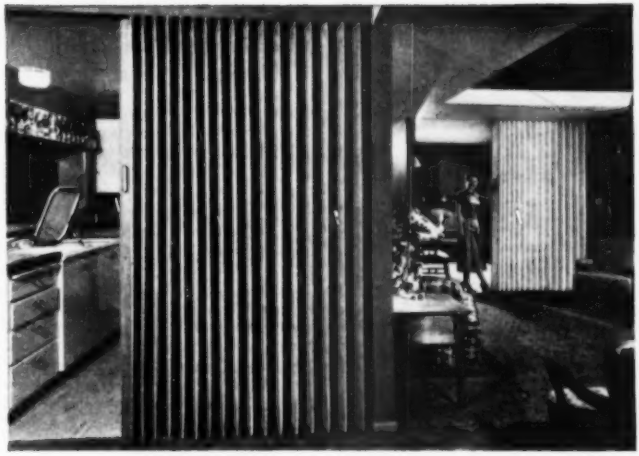


Applying panels horizontally over furring strips above studs. Nails placed in the 3/8 inch tongue are covered over by the joining panel, leaving no marring of the surface

stapled along the 3/8-inch tongue and are covered over by the joining panel so they do not show. As the panels have a smooth, hard surface, paint is applied evenly; some prefer to leave panels in their natural wood color, applying a surface of wax.

When applying the panels vertically, furring strips, either 1x2 or 1x3 should be nailed to the studs, spaced 10 inches on center, up to shoulder height; 16 inches on center

(*Continued on page 239*)



"How 'Modernfold' Doors Simplify Our Selling Job"

"Guess this picture tells the story," says Bill W. Tietz, President of the Tietz Construction Co., Tacoma, Washington.

"Our Mountbrook Manor development customers really go for the way 'Modernfold' *movable walls* give them a choice of (1) either a 10-foot longer living room or (2) an extra bedroom or den. And *who wouldn't* like a single door to separate or combine their kitchen and dining room?"

AS A SELLER you'll appreciate "Modernfold" doors because they give your house that "extra something" that sets them apart . . . and speeds sales.

AS A BUILDER you'll like the way these steel-framed, vinyl-covered doors go up fast—*complete.* No casing, trimming, painting, hardware needed.

AS FOR QUALITY, Bill Tietz says, "Extensive use of 'Modernfold' *in my own home* (above) shows exactly how I feel about your product."

For full details—check our distributor under "doors" in your classified directory. Or clip coupon.

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***In Canada:* Modernfold Doors, 1315 Greene Avenue, Montreal**

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Please send full details on "Modernfold" doors.

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"How we make our Garages lighter and private"

says a typical builder

"We know we're making a satisfied customer when we put in a panel of Insulux Glass Block®. We know the garage will be lighter and more private . . . that outsiders can never tell what's stored inside."

With glass block there's no upkeep—no reputtying or repainting. Panels can be hosed down to clean—there's nothing to rust or rot. If garages are below house level, glass block panels are a natural. They're weatherproof, waterproof, and impervious to weather of all kinds.

Supplies of Insulux Glass Block and all of the installation materials needed are noncritical and immediately available in quantity.

Send for the details and be ready when customers ask about this use of glass block. Write: Insulux Glass Block Div., Kimble Glass Company, Dept. AB-10, Box 1035, Toledo 1, Ohio.

KIMBLE GLASS COMPANY

Subsidiary of Owens-Illinois Glass Company
Toledo 1, Ohio

New Shopping Center to Be Largest in West

The west coast's largest integrated shopping center will soon be under construction in San Mateo, Calif., according to its developers, the David D. Bohannon organization.

As planned, the new Hillsdale project will cover more than 40 acres with shops and stores valued at $30 million. Floor area will be more than 1 million square feet.

Focal building of the center will be a $6 million suburban unit of Macy's San Francisco store. Its construction will be of reinforced architectural concrete and stone, with a lattice of aluminum rods extending the full length of the main elevation.

In addition, there will be 75 stores, a medical-dental building, theater, drive-in bank, underground concourse for trucks, and free parking for 12,000 cars daily.

The project is designed by the architectural firm of Welton Becket & Associates, architects of the similar Stonestown project nearing completion outside San Francisco.

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CLEAN ACCURATELY
with less effort

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AMERICA'S MOST TALKED-ABOUT *ANSWER* TO THE GARBAGE DISPOSAL PROBLEM!

You'll make EXTRA PROFITS—capitalize on the need of every homemaker—when you install the Majestic Indoor Incinerator! The easy modern way to dispose of *both* garbage and trash! Compact and easy to install in basements or utility rooms. Costs nothing to operate. Refuse (wet and dry garbage) serves as its own fuel. Unique "down-draft" design guarantees efficient, odor-free, sanitary performance. Load it, light it and leave it. Connects to furnace flue . . . easily, quickly. Two-bushel capacity. 23" diameter, 31" high.

Satisfaction Guaranteed

Attached to every Majestic Incinerator is a money-back guarantee that it will perform as claimed. Write us today . . . don't let someone else beat you to the punch. Cash in on the EXTRA PROFITS of the Majestic Indoor Incinerator NOW.

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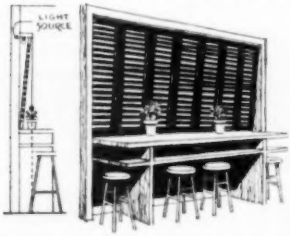
Majestic
INDOOR INCINERATOR
Nationally Advertised In Leading Magazines

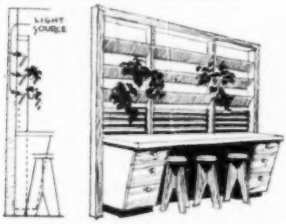
(*Continued from page 237*)
may be used above shoulder height. Panels are nailed at each furring strip. When studs are not aligned perfectly, making an even backing for the panels, shims placed between the furring and stud will bring the panels into truer alignment. When panels are applied horizontally, furring strips are nailed 8 inches on center across the studding, making sure to space them so that the panel tongue and groove joints are backed against the strips to allow for nailing. Panels can be applied directly to studs without furring if studs are 16 inches on center, straight and well-aligned.

Decorative Treatments For a Windowless Wall

Windowless walls in a home should offer no decorative problems, since their potentialities for improvement are almost limitless. Assuming a blank wall exists on one side of a kitchen or dining area, a snack bar can be set up, (A) with the back of



the bar flush with the blank wall, the bar extending out into the room far enough to slide bar stools beneath it when they are not in use. Venetian blinds can be set into the remaining area, coming down flush with the table top. Behind the blinds, a fluorescent tube near the top and extending its full width will create the effect of depth as well as daylight. If greater light is preferred, a second fluorescent tube may be utilized, this one near the foot of the blinds.



Another method of utilizing the challenge of a blank wall is to create a similar effect, using instead a planning and wrapping bar, (B) with wooden drawers at either end of a

(*Continued on page 241*)

(*Advertisement*)

Redwood in the News

The art of outdoor living and entertainment, indigenous as it is to California, is furthered by the use of furniture and structures designed with the durable redwood native to that state.

Redwood again was used extensively and spectacularly this year in designs for garden living exhibited in the California Spring Garden Show at Oakland, California.

From this show, which has attained national prominence among flower and garden exhibits, numerous unique garden ideas have been compiled into a handy, profusely illustrated booklet which can be obtained free from the California Redwood Association, 576 Sacramento Street, San Francisco 11, California.

Feature CRA REDWOOD

You're *bound* to make friends where you sell CRA Redwood—the grade-marked, trade-marked, Certified Dry Redwood from California's coastal counties. For this is Redwood at its best—uniform in quality—dependable in performance—ideal for *any* job that calls for Redwood's durability, stability and paintability. That's why *you* should feature grade-marked, trade-marked CRA Certified Dry Redwood—the Redwood you can be *sure* of—the Redwood processed by the reputable member firms of the

CALIFORNIA REDWOOD ASSOCIATION
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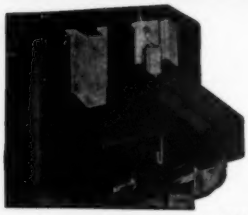
WILLITS REDWOOD PRODUCTS CO. • ARCATA REDWOOD CO. • COASTAL PLYWOOD & LUMBER CO. • HAMMOND LUMBER CO. • HOLMES EUREKA LUMBER CO. • NORTHERN REDWOOD LUMBER CO. • THE PACIFIC LUMBER CO. ROCKPORT REDWOOD CO. • SIMPSON LOGGING CO. • UNION LUMBER CO. • WARM SPRINGS LUMBER CO.

The Milwaukee Combination

SASH BALANCE and WEATHERSTRIP



Available with or without bronze covers that completely hide spring, as shown above.

PERMITS REMOVAL OF SASH WEIGHTS, INSULATION OF MULLIONS.

Slash Labor Costs

Simple installation allows one man to easily install 30 or more windows in 8 hours. No high-priced skilled labor needed. This means you can get more satisfied customers at lower cost . . . higher profit!

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Please rush me folder A-10 and price list of Milwaukee Combination Sash Balance Weatherstrip.

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Storage Wall Separates Kitchen-Dining Areas

This low, attractive storage wall not only divides dining room from kitchen, but serves as utility unit for both areas. On the kitchen side it provides a conventional work shelf and drawer space; in dining section it opens into a built-in buffet with sizeable cupboard space, and a wood box for dining room fireplace. The material is Malarkey vertical grain redwood plywood. Roscoe Hemenway, Portland, Ore., was the architect

What's Your Building Problem? Is it insulation? Condensation? Damp basements? Measuring rafters? Specifying plumbing or electrical wiring requirements? Whatever it is, American Builder stands ready to serve you through the "Ask the Experts" department. Send your problem today to: "Ask the Experts," American Builder, 79 W. Monroe St., Chicago 3, Ill.

the **EZ-WAY** folding stairway

it's like adding *another* ROOM

Converting that waste space in the attic into usable, livable space is like adding another room . . . it's easy and economical too with an EZ-WAY folding stairway.
EZ-WAY folding stairways are completely assembled, jamb included, panel attached for easy installation.

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- *No counterweights*
- *Safti-walk strips on each step*
- *Sturdily built, modern in appearance*

Substitutes are not just as good!

Write for name of nearest distributor

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Dept. 5, Box 300, St. Paul Park, Minn.

only ONE easy Adjustment to put Men at the Right Height QUICKLY!

"TROUBLE SAVER" ADJUSTABLE STEEL TRESTLES

- Your men can do more work because they will spend less time in erecting and moving "Trouble Saver" Steel Trestles.
- Only one, easy, positive adjustment—no tools, triggers or gadgets required.
- "Trouble Savers" are made of carbon steel . . . in eight handy sizes.

Write for literature—giving complete information on all "Trouble Saver" scaffolding accessories.

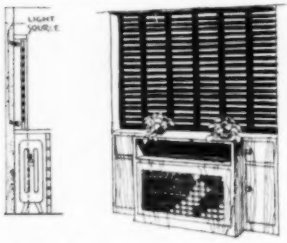
Manufacturers of "Trouble Savers" since 1912

The Steel Scaffolding Company, Inc.

856 Humboldt Street Dept. AB Brooklyn 22, New York
Telephone: EVergreen 3-5510

(Continued from page 239)
counter-type table top. In place of blinds, upright 2x4's, to which are attached 1x6's, at approximately a 30 degree angle, can be installed. Again using fluorescent tubes behind each slat, flower pots containing ivy can be affixed to the 2x4's, giving a pleasant open effect.

Assuming a hot water or steam radiator stands in front of a blank wall, utilizing a radiator cover plus the afore-mentioned venetian blind



effect will create an entirely new wall surface; (C) again using the fluorescent tube as the light source, an illusion of depth and spaciousness will result. In such places as living rooms or bedrooms, this arrangement can have particularly decorative effect.

CISC Action Blamed for Bricklayers' Wage Hike

Union scale for bricklayers in New York City and part of Long Island was raised 30 cents to a new hourly high of $3.55 last July in a two-year agreement on wages reached between the Building Contractors' and Mason Builders' Association and representatives of nine local A. F. of L. unions.

Commenting on the agreement, John H. Eisele, president of the BCMBA, said: "We bargained with the union representatives for more than four months in an effort to keep the wage rate within the pattern of the collective stabilization program of the Building Trades Employers' Association, but unfortunately the Construction Industry Stabilization Commission in Washington pulled the rug out from under us by approving a $3.55 rate for another New York employers association (Associated Brick Mason Contractors of Greater New York) while our negotiations with the unions were deadlocked.

"We strongly protested the action of the CISC and were denied the right of an oral hearing to present our case against disrupting the New York area wage rates. Under the circumstances, we had no alternative but to grant the same rate to prevent chaotic conditions in the building industry."

Two new Case fixtures

TURN lookers...INTO buyers!

Case WHITNEY counter-type lavatory

For a new generation seeking and buying new ideas in convenience and comfort, feature Case quality in these timely new models! The WHITNEY Lavatory, spacious and unkitchenlike with its slanting control panel, is compact (22"x18")...leaves room for counter space that makes "small" bathrooms seem larger. Bathroom storage space normally left unused can now supplement closet area in other rooms. Stainless one-piece metal rim. In 26 colors, and white.

CASE® One-Piece* with elongated bowl

This Case One-Piece, now available with regular or elongated bowl, affords an unequalled combination of sanitation features. Exclusive design prevents bowl overflow from stoppage due to carelessness or accident. Low overall height of integral tank permits space-saving installation under stairs, window, or in a corner.

● For distributors, look under "Case" in your Classified Telephone Directory. Or write W. A. Case & Son Mfg. Co., 33 Main Street, Buffalo 3, N. Y. Founded 1853.

Case Fine Vitreous China

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Clip this handy memo to your letterhead and mail today!

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We are interested in: 8

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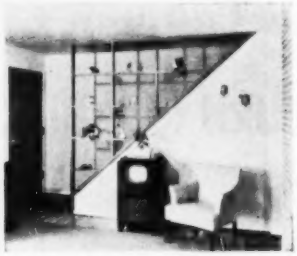
Please send literature and samples.

Your Name.....

Idea for a Stairway



A simple yet effective way to embellish a stairway in a small house is to frame in the stairwell with widely spaced one-inch members in a pattern of squares. This gives knicknack shelves as well. Builder Al Balch worked out this idea in one of his houses in Seattle.

Did You Like Our Paint Series?

Next month, *American Builder's* series of articles on Paint and the Building Business, begun in February 1952, will close with how-to notes on the use and care of brushes and other painting tools. Have you profited from these articles, and would you be interested in similar articles on other building materials? Your comments are invited. Send them to *American Builder*, 79 W. Monroe St., Chicago 3, Ill.

Throw out the excuses with the waste—Use READY HUNG DOORS.

ASK FOR Ready Hung DOORS

THE NEW DOOR AND FRAME PACKAGED UNIT

READY HUNG DOOR CORP., DEPT. A
FORT WORTH, TEXAS

KOHLER ELECTRIC PLANTS

Independent Source of Electricity

The job moves faster

PORTABLE electricity eliminates expense and bother of temporary power line hook-ups. Low cost model operates saws, pipe threaders, cutters, electric drills, other tools having universal (AC-DC) motors. Develops 1500 watts. Compact, weighs only 75 lbs. Handles for carrying. Two-wheel, rubber-tired hand truck available. Other sizes, 350 watts to 15 KW. Write for folder 11-E.

Model 1.5MS, *1500 watts, 115 volt DC. Manual control. Length 18", width 14", height 21".*

Kohler Co., Kohler, Wisconsin. Established 1873

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Announcing the New FRANTZ No. 500 SERIES

FIVE-SECTION DOORS

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FAMOUS FRANTZ FEATURES

plus headroom requirement of only 6"

Here's an all new sectional-type garage door—one that *looks* modern—one that *is* modern! Frantz No. 500 Series Doors offer more distinctive features than any other sectional door on the market. Such exclusive features as the adjustable brake, which prevents door rebound; the low-headroom bracket, which permits installation with only 6" of headroom; the smooth, double-action latch, which automatically latches the door without having to turn the handle; the inside-outside lock mechanism, which permits locking and unlocking the door from the inside or outside at will—plus almost a dozen other design advantages—make Frantz Sectional-Type Doors the smoothest operating overhead doors that money can buy. Easily installed and toxic-treated against rot, the sturdy door and rugged hardware provide lasting satisfaction. Available for standard 8′ x 7′ and 9′ x 7′ openings; fourth section from bottom left open for glass or solid panels as desired. Write for full details without delay!

NO OTHER OVERHEAD DOOR OFFERS SO MANY ENGINEERED FEATURES

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- Only 6" headroom required for installation.
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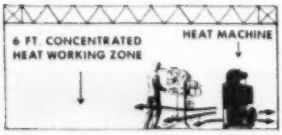

HEAT THE Fageol WORK ZONE

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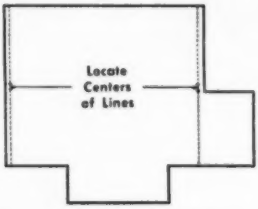
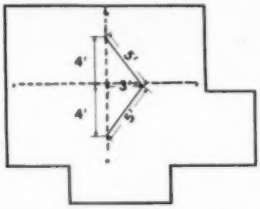
How to Install Asphalt Tile Flooring

Most plastic or asphalt tile flooring can be installed on any indoor wood or concrete floor. However, some floors need reconditioning before tile can be laid; it is, therefore, wise to correct any faulty floor conditions before proceeding with the installation of the permanent tile covering.

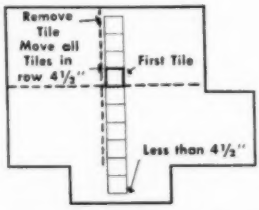
Installing floor tile on a concrete indoor floor area follows a similar procedure. Existing holes and cracks must be filled, uneven spots leveled, and the floor thoroughly cleaned. Any loose paint should be removed with a wire brush; if the concrete is in contact with the ground, all paint and varnish must be removed with



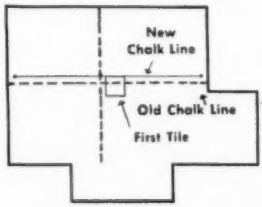
Locating center of the principal rectangular space of the room



Determining accuracy of two center lines by plotting right-angle triangles



First step in providing for border tiles, by moving entire line of loose tiles 4½ in.



Reestablishing new chalk line to use as starting place for setting first tile

When working on wood floors, worn or broken boards must be repaired, filling knotholes and cracks, and nailing down loose or springy boards. Excessive roughness should be planed smooth. Any previous floor covering, such as linoleum, should be taken up; excess dirt, wax or grease can be removed by a floor sander.

If the wood floor is of single construction, a layer of ¼-inch plywood should be installed, nailing it every 6 inches throughout, and every 3 inches along seams. On boards over 4 inches wide, plywood of ⅜-inch or ½-inch thickness is recommended. All nail heads must be well set into the plywood. On all installations over wood floors, a 15 pound asphalt-saturated felt paper should be applied over linoleum paste. The felt should be pressed down firmly with a rolling pin, rolling from the center to the edges, forcing out any air pockets, so that the felt sticks securely to the entire floor. The edges of the felt should be butted; the edges must touch but not overlap.

a sanding machine. Use of felt paper is not required when installing tile on a concrete floor.

Once the floor is in condition to begin laying the tile, the first step is to locate the exact center of the *main portion* of the room, disregarding all jogs or alcoves, considering only the largest oblong space. At each end, locate the exact mid-point between the walls. Drive nails in these points; then, with a chalked string tied securely to these two nails, lift the string and let go. This will mark a chalk line on the floor.

Next, find the center of this chalk line by measuring it from end to end. By the same method, locate the center of the side walls, and snap a chalk line between these points through the center mark, at a 90 degree angle to the first line.

To make certain the two lines are at exact right angles to each other, measure four feet towards each side wall on the first chalk line, then measure three feet toward one end

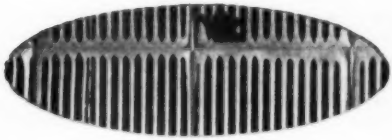
(*Continued on page 246*)

HAKO Coronet PLASTIC WALL TILE

the plastic wall tile

that licked **WATER DAMAGE**

BUILDERS, at last, here is the ONE plastic wall tile that has forever licked water damage! CORONET is the plastic wall tile that is positively waterproof safe in shower stalls and tub recesses. CORONET Plastic Wall Tile, in addition to its POSITIVE waterproof protection, combines an unmatched beauty with a PROVED permanence and construction economy. The bevel edge of CORONET gives the appearance of greater depth and thickness. The extremely light weight of CORONET makes it easy to handle, simple to install on almost any wall surface. A wide variety of glamorous colors, selected and approved by color experts, provide literally hundreds of striking combinations for more cheerful rooms that add customer sales appeal. CORONET is ideal for the bath, kitchen, laundry, powder room . . . and is entirely suitable and desirable in any commercial or institutional installation.



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The new Bucyrus-Erie Hydrohoe not only pays its way as a dragshovel but for users requiring only a part-time excavator, it can be converted to crane front-end in the field amazingly fast (less than four man-hours by actual report). For example, with a Hydrohoe you can dig foundation footings, then convert to crane front-end, and use it with a concrete bucket to pour footings, with clamshell bucket for digging, or for any other lifting or material handling jobs.

184H52

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★ Eliminates up to 40 percent of time lost moving up.

★ Precision control — every work function fully hydraulic.

★ Hydraulic ejector, built into dipper, assures fast, clean dipper dump — makes it practical to use a narrow 12-in. wide dipper.

★ By telescoping boom, operator can peel off scallops at grade level — dig a smooth, level trench.

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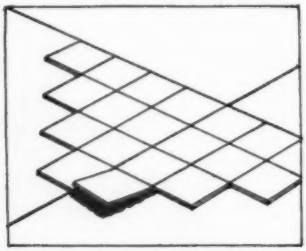
HYDROCRANE DIV.
South Milwaukee
Wisconsin

(Continued from page 244)

on the second line. The diagonal distance between these two points must be exactly five feet in each case. If it is not exactly five feet, the measurement was incorrect; the two chalk lines must be at exact right angles, crossing in the exact center of the room.

The tile border, whether contrasting or matching, should be at least one-half tile wide, not only for appearance, but for easier installation. Providing for the border is the next step, before actually laying any of the flooring. The installer should lay a loose tile in the angle formed by



Tiles must be laid pyramid fashion from first tile, progressing along new chalk line

the two chalk lines. Following the short line, lay loose tile from wall to wall. If the space at either end of this line of tile is less than 4½ inches (one-half tile), remove the last tile from the *opposite* end, and move the whole line of loose tiles 4½ inches toward the end from which the loose tile was removed.

If the line of loose tiles has been moved accurately, the long chalk line at the center has now been covered by one of the tiles. It is now necessary to move the first two nails 4½ inches in the same direction as the tile was moved, and resnap the long chalk line, as done in the first operation. These steps must be repeated along the long line in order to determine the border along the other two walls.

The third major step is to spread the adhesive. Begin by spreading over both chalk lines, leaving only the nail points at both ends of each line and the intersection point in the center of the room uncovered. Allow the adhesive to become "tacky," then re-establish the original chalk lines over the adhesive to furnish guide lines.

Next, spread the adhesive over one-half of the floor area. This must be done most carefully, using a steel spreader with one saw-toothed blade. Press firmly when spreading, and allow only as much adhesive to re-

(Continued on page 248)

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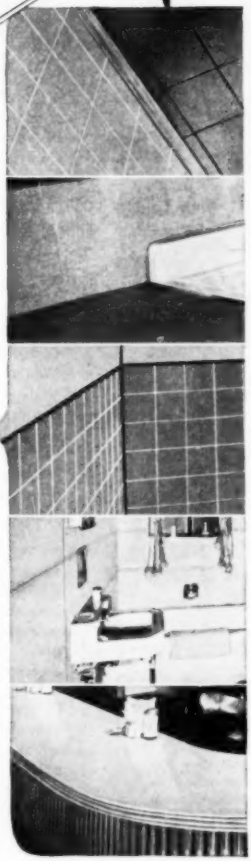

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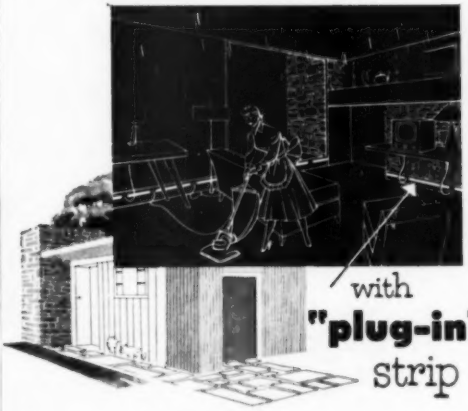

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SALES REPRESENTATIVE OF THE ARBORITE COMPANY, LIMITED, MONTREAL, CANADA

(*Continued from page 246*)

main on the floor as will pass between the saw teeth.

It is important not to begin to lay any tile until the adhesive surface becomes "tacky." If it sticks to the finger, wait. At least 30 minutes setting time must be allowed.

To begin laying the tile, start at the intersection of the chalk lines. Press one tile into the adhesive in the angle formed by the lines, on the side toward the adhesive-covered half of the room, making certain that the tile exactly touches both lines. Each tile must be butted squarely against the next, with corners meeting exactly. Marbleized tile should be laid with the grain running in alternate directions.

It is essential to press each tile straight down, as sliding the tile into position would cause the adhesive to ooze up between the tiles, throwing the following rows of tiles out of alignment. After the first tile is laid, work in a pyramid fashion, laying an advanced tile along the chalk line, then placing tiles at both sides of it, forming a successively larger pyramid.

After one half of the room has been finished except for the border area, the adhesive is spread for the other half. Again, wait for the adhesive to become sufficiently tacky before continuing.

If diagonal tiling is preferred, lay the first tile exactly in the center of the room, so that the intersecting chalk lines project from all four corners. Lay each succeeding tile along both lines, making sure that the chalk line is directly under the farthest corner of each tile. It is important not to lay tile across the border area.

Since no wall is perfectly straight, the border must be fitted individually. First, lay the loose border tiles over the last row of installed tiles, making sure that the grain pattern is alternate to the tiles on which they rest. Over one of the loose tiles, place a second tile, to be used as a measure, holding it flush against the wall. A thin strip of wood on the floor between the installed tile and the wall will keep the measuring tile free of adhesive, while holding it level.

The tile to be marked must be exactly in place, with the measuring tile flush against the wall. Using a scriber, score a deep line in the border tile, then as each border tile is scored, snap it off along the mark from side to side, and trim the rough edges with sandpaper.

For working in door jambs and similar areas, the same procedure is followed.

Data courtesy of Hachmeister, Inc.

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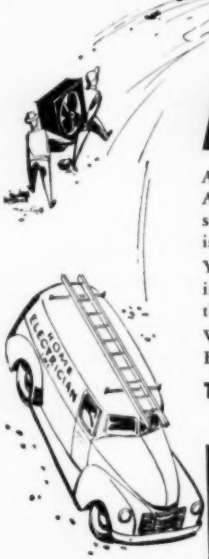

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G. H. Zimmerman, Texas Lumberman, Passes at 63

G. H. Zimmerman, president and board chairman of William Cameron Co., Waco lumber and woodwork firm, died suddenly August 29, 1952, in a Wichita Falls, Texas, hospital. He was on a business trip with several officials of his company when he suffered a heart attack.

Zimmerman had been associated with William Cameron Co. since 1910, when he went to Waco as

G. H. Zimmerman

a traveling salesman in the wholesale department. By 1920, he was appointed company secretary. He served successively as head of the company's land, traffic and insurance departments, general counsel, and vice president and general manager. In 1949 he became president, later, chairman of the board.

Succeeding Zimmerman at the William Cameron Co. will be F. R. Weddington, president; Coleman Dever, vice president in charge of all wholesale sales; and J. R. Byford, sales manager of the wholesale division. The company, which is the largest woodwork mill in the South, has 98 branches in Texas, Oklahoma and New Mexico.

Plywood Contest Draws 36,000 Inquiries

More than 36,000 persons requested entry blanks and idea literature during the Douglas Fir Plywood Association's recent "Room-for-Improvement" remodeling contest, O. Harry Schrader, association managing director, has reported.

About one person in three, or around 13,000, submitted fully completed entries, Schrader said.

Winners were offered $20,000 in prizes with big bonuses for actually completing their jobs by August 1952.

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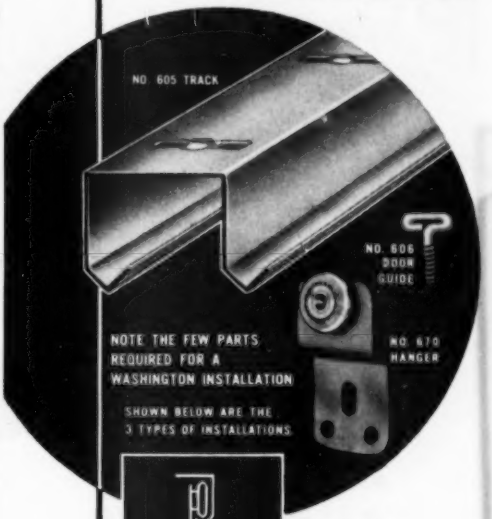

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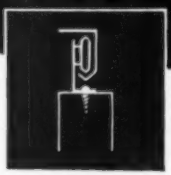
SHOWN BELOW ARE THE 3 TYPES OF INSTALLATIONS



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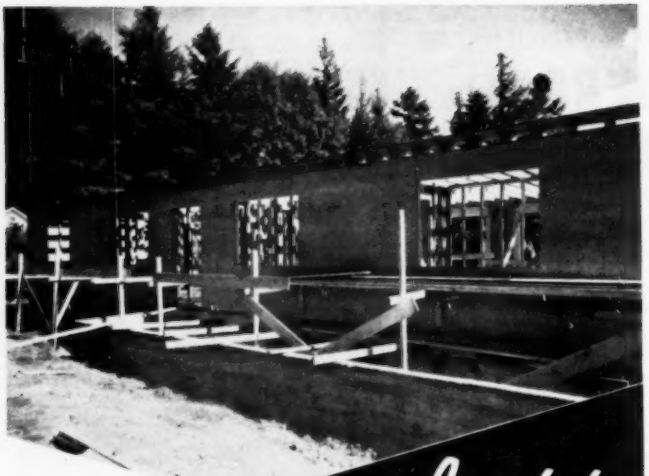
1940 EAST 11th STREET, TACOMA 2, WASHINGTON



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No home is modern without being insulated. In new construction Fir-Tex asphalt impregnated sheathing not only seals homes against heat, cold, dust and noise but also has greater bracing strength than ordinary sheathing. For better homes for your customers, recommend Fir-Tex sheathing. Two types—large sheets 4 feet wide up to 12 feet long and horizontal type 2 feet by 8 feet.

ALL FIR-TEX INSULATING BUILDING BOARD PRODUCTS ARE TERMITE PROOF

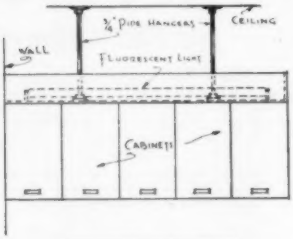
FIR-TEX

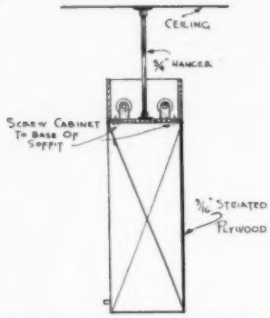
Exclusive Sales Distributors
DANT & RUSSELL, INC.
PORTLAND, OREGON

INTERIOR FINISH
To add on extra room within the home, finish attic or basement with Fir-Tex color panels and tile. Factory finished in White, Ivory, Wheat or Green. Fir-Tex is the ideal material for these purposes.

Hanging Wall Cabinets From Ceiling

When storage space is at a premium in the kitchen of a ranch-type or similar small home, one method of utilizing unused space without relinquishing needed wall surface is





to suspend a bank of wall cabinets from the ceiling, abutting the wall on one end only. A suggested typical location for such cabinets might be over the breakfast bar separating the kitchen from the dinette. In such a spot, head room offers no problem, since the food bar precludes walking beneath the cabinets, yet they are within easy reach, without having to use a step stool.

As shown in the upper diagram, as many as five cabinets made of 3/16-inch striated plywood can be aligned, each cabinet screwed to the mase of the fluorescent light soffit, and the entire unit fastened to the ceiling by 3/4-inch pipe hangers. The diffusion of the fluorescents above the cabinets is not lost, since the light is reflected from the ceiling. This method takes advantage of otherwise unused space for the storage of needed articles.

"Floating Convention"

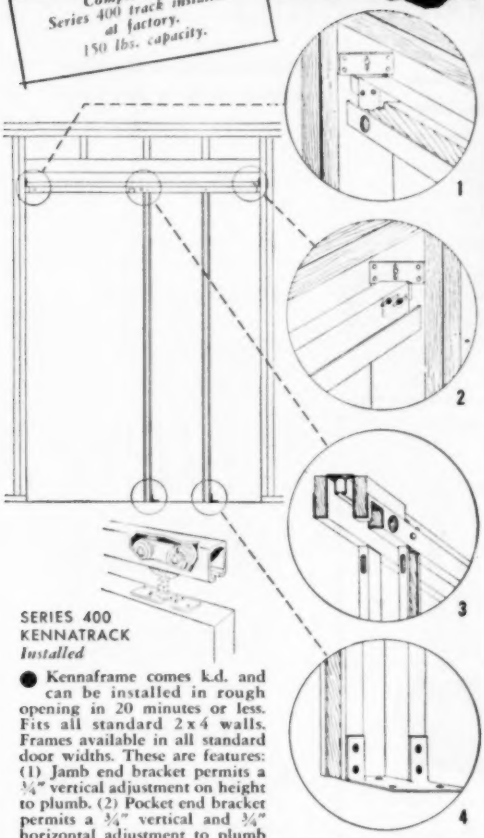
In observance of its 25th anniversary, the Bruce Terminix organization will hold a "floating convention" aboard the S.S. American on a Lake Michigan cruise. Licensed by E. L. Bruce Co., the termite control group is comprised of 75 independent Terminix companies operating in 41 states, Washington, D. C., and Hawaii.

Warp Proof!

KENNAFRAME

SERIES 800 PREFABRICATED METAL PASSAGE DOOR FRAME

Complete with Series 400 track installed at factory. 150 lbs. capacity.



SERIES 400
KENNATRACK
Installed

● Kennaframe comes k.d. and can be installed in rough opening in 20 minutes or less. Fits all standard 2 x 4 walls. Frames available in all standard door widths. These are features: (1) Jamb end bracket permits a ¾" vertical adjustment on height to plumb. (2) Pocket end bracket permits a ¾" vertical and ¾" horizontal adjustment to plumb and fit opening. (3) All split jambs provide a 1⅝" adjustment for height to fit uneven concrete or double wood floors. Slot in header provides access to hangers for door adjustment. (4) Wood filler strips allow plaster grounds, trim and stops to be nailed or screwed in usual manner. Base brackets assure proper spacing of split jambs and anchorage to floor.

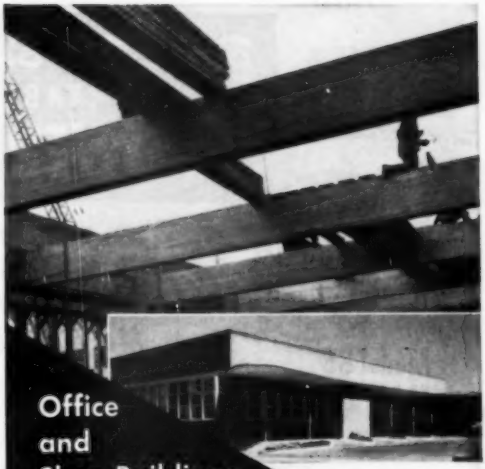
See your Kennatrack dealer or jobber, or write Dept. D-10.

JAY G. McKENNA, INC.

ELKHART, INDIANA

JAY G. McKENNA (Canada) Ltd., 104 Jarvis St., Toronto, Canada

Specializing Exclusively in the Manufacture of Sliding Door Hardware



Office and Shop Buildings Tailored for Tomorrow's Needs

Office building of nationally known Crow Publishing Company. Size 45x98 feet. Glulam beams were designed to support both roof and second floor if a second story should later be added.

Here is a building that any tenant would be proud to occupy. And any tenant will find the building as functional and convenient as if it were designed for his own particular needs.

For, with glulam beams supporting the roof, partitions are all non-bearing walls which can be removed or changed at will. Entire floor space can be placed into one undivided area, or it can be partitioned into as many rooms as the occupant desires.

This unlimited adaptability adds tangible value to the building, makes it a preferred investment for businesses of many kinds.

Glulam beams are formed by Timber Structures, Inc., of seasoned material "welded" together by glues as strong and permanent as the wood. They are free from seasoning action, and require no maintenance.

Dimensional data and typical applications of glulam beams are contained in our new informative booklet, "Engineered Timber Construction". You can get your copy by mailing us the filled-in coupon.

TIMBER STRUCTURES, INC.

P. O. Box 3782-M, Portland 8, Oregon

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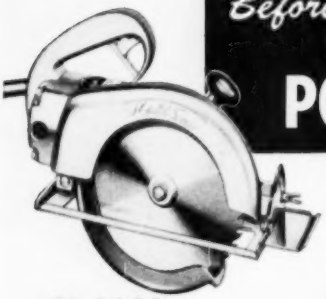

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Model 86 MALLSAW Gives You All These Performance Advantages:

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- Handy on Ladders, Scaffolds, Roofs
- Readily Adapts to Cut Any Materials
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Expect years of dependable, trouble-free service from a Model 86 MALLSAW . . . a light-weight but powerful tool that speeds any sawing job. Supplied with 8½" dia. combination blade, cord, lubricant, wrench — all in handy metal carrying case. Extra blades available for dadoing; grooving tile, concrete; cutting light metals. Choose and use this handy MALLSAW — a quality tool, through and through!

See Your Nearest MALL Dealer — Or Mail Coupon for Latest Catalog.

Mall TOOL COMPANY
7737 S. Chicago Avenue
Chicago 19, Illinois

Clip and mail this CHECK LIST for details

Asbestos-Cement Group Issues New Film

A new film, "According to Plan," showing the development and applications of asbestos-cement siding shingles, has been produced by the Asbestos-Cement Products Association. Running time is approximately 14 minutes.

Prints of the film will be loaned without cost to dealers, builders, applicators and other interested groups, according to Chester C. Kelsey, association manager. Inquiries should be addressed to: Asbestos-Cement Products Association, 509 Madison Ave., New York 22, N. Y.

Fire Resistive Ratings Given in New Booklet

Eighty-five different types of fireproof construction are described in the Summary of Metal Lath and Plaster Fire Resistive Ratings, recently released by the Metal Lath Manufacturers Association. Included is fire protection information for steel columns, girders and trusses, joists, floors and partitions.

Persons in the building industry can obtain the summary from the association at 636 Engineers Building, Cleveland 14, Ohio.

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DANDUX PENGUIN TARPAULINS

. . . your best buy for on-the-job efficiency!

Penguin tarps are available in 13 stock sizes and 3 weights. Brown. Treated. Rugged construction. Quick delivery from warehouses all over the country.

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Power Auger Bits

Specially Designed for Electric Drills

Made of Highest Quality Swedish Tool Steel. Bores 50% faster, Will Not Bind, Bores at any angle, Precision Machining assures Accuracy.

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a.) Choice of Four Set-Combinations
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10 MINUTES OR LESS!

Yes, only ten minutes or less are required to install a BILCO DOOR when you are ready to pour the capping or sidewalls. BILCOS also save countless man-hours during construction by giving free access to the basement.

And remember the advantages to your customer! Only BILCO CELLADOORS give the real basement efficiency that Homeowners want.

It's a lifetime investment—economical, trouble-free, burglar and fire-proof.

Write to The Bilco Co., 118 Hallock Ave., New Haven, Conn., for construction facts and the name of your nearest dealer.

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CELLADOORS

HIDALIFT

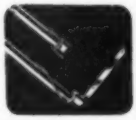
the completely modern SASH BALANCE

speeds up new construction sales!

New construction really sells faster when you add Hidalift's exclusive "sell" features to your buildings. And no wonder! 100% *concealed* — it boasts *positive lifting power* provided by the highest quality coil spring. *Smooth-as-silk* in operation, the new, improved Hidalift is designed for *easy, fast installation*. Truly the most modern sash balance ever made . . . acclaimed by builders, contractors and homeowners — everywhere!

TWO TYPES OF ATTACHING BRACKET

Tension is applied DURING installation by winding hinged bracket arm (on "L" type); AFTER installation by turning tensioning screw on both "L" and "Cup" types.



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Please send samples of SISALKRAFT and SISALATION, and data on their many uses.

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THE SISALKRAFT CO.
205 West Wacker Drive, Chicago 6, Illinois
New York 17, N. Y. • San Francisco 5, Calif.

Site Planning with Models

Accurately-scaled models of service stations are being used by the Pure Oil Co to determine the most effective use of building sites. The miniatures shown here with interchangeable units for offices, lube sections, islands, etc., were produced by Architectural Model Materials, Inc., Chicago, which specializes in custom-built models and displays. The miniatures are finding increasing use in advertising, display engineering, real estate development and other fields, the company said.

Curtis Sales Staff Meets

Around 75 sales executives and sales representatives of Curtis Companies Inc., Clinton, Iowa, attended a recent four-day conference. Three days were spent at the firm's home office in Clinton and one day at its American Plywood Division in New London, Wis.

Build a reputation for including a Scotts LAWN

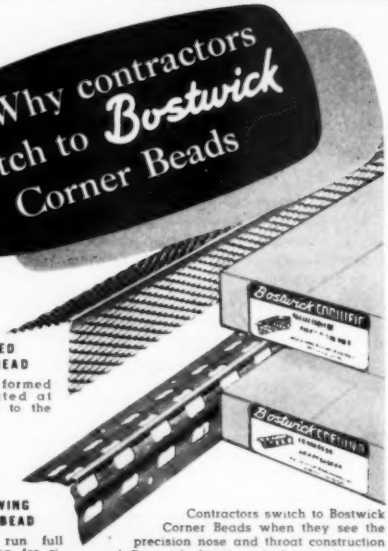
It's a "*plus value*" that moves homes and contributes toward satisfaction for years to come. Best of all you can furnish a carpet of Scotts velvety turf for little more than a short lived ordinary lawn.

Get all the facts about using Scotts LAWN CARE PRODUCTS at your local Scott dealer or write direct. Be sure to ask for a free volume of Lawn Care bulletins—yours for the asking.

O M Scott & SONS CO
45 Fourth St., Marysville, O
also Palo Alto, California

Scotts LAWN CARE PRODUCTS

Why contractors switch to Bostwick Corner Beads



EXPANDED CORNER BEAD
Scientifically formed throat located at proper angle to the tubular bead

TRUSS-WING CORNER BEAD
Corrugations run full length of wing for rigidity and straightness. B B perforations for perfect plaster key. Bead and throat combine for easy bending.

Contractors switch to Bostwick Corner Beads when they see the precision nose and throat construction of Bostwick beads which permit easy bending for arches and sure plaster key. And, contractors like the easy-to-handle, rugged cartons that carry the Bostwick bead straight and undamaged right to the job. Write for catalog C-50.

Bostwick THE BOSTWICK STEEL LATH CO.
103 HEATON AVE. • NILES, OHIO

BETTER IN SO MANY WAYS, BETTER FOR SO MANY JOBS

THE *BLACKHAWK* DUAL-ACTION DOZER

Blackhawk Half-Tracks provide extra traction, flotation, stability; combine with Dual-Action Dozer for low cost, highly efficient dirt and snow moving equipment.

Better in These Ways . . .

1. Accurately controlled hydraulic down pressure and lift. Cuts into hard soils, frozen ground.
2. Blade may be angled in 5 positions. Use as bulldozer or angledozer.
3. Conveniently located frame tilting device tilts blade to left or right.
4. Blade lifts to height of 18". Sufficient clearance for passing through ditches, over curbs, or down steep banks.
5. Accessories include adjustable side plates and skid shoes to make soil peeling easy and prevent gouging. Blade extension, spring kit and skid shoes convert 6′ blade to snow plow.

Better For These Jobs . . .

Backfilling — Removing Top Soil — Leveling — Landscaping — Terracing — Grading — Cleaning Ditches — Excavating — Snow Clearance — Light Road Maintenance

CALL, WIRE or WRITE today FOR MORE INFORMATION!

ARPS CORPORATION NEW HOLSTEIN, WISCONSIN

FIRST AGAIN AMWELD® STEEL

KNOCKED-DOWN SLIDING CLOSET DOOR UNIT

NOW AVAILABLE IN

NEW BIRCH FINISH

Now matches flush birch swing doors—and look at the space you save . . . 6 to 9 square feet of floor space.

Everything complete in one carton. All hardware snaps easily into position. Easy-to-follow instructions enclosed. Available for 3 ft., 4 ft., 5 ft., and 6 ft. openings — two by-passing panels for each size.

PLUS these new features

NEW all hardware simply snaps in place.

NEW two large non-tarnishing plastic door pulls snap in *each* panel.

NEW lifetime nylon rollers provide easy, silent operation.

NEW self-adjusting spring held nylon guide-keepers assure ease of operation and prevent sway and derailing.

(Patent Applied For)

The original AMWELD Knocked-Down Steel Sliding Closet Door Units score again with door panels finished in baked enamel birch grain. No other finishing required. Baked enamel is enduring and so easy to clean and keep clean.

SEND YOUR ORDER TODAY TO INSURE PROMPT SHIPMENT

AMWELD Steel Sliding Closet Door Units are still available with grey baked on prime coat.

AMWELD BUILDING PRODUCTS DIVISION

THE AMERICAN WELDING & MFG. CO.
310 DIETZ ROAD • WARREN, OHIO

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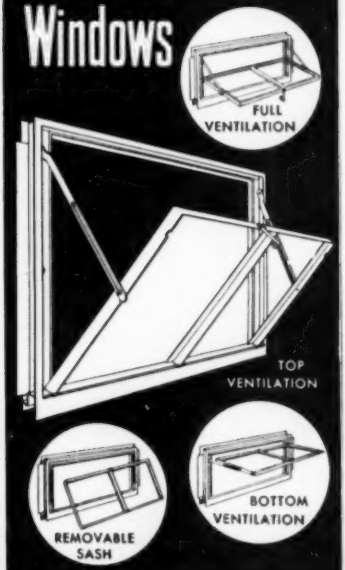
VENTO

Steel *Basement* Windows



- **Adjustable Ventilation**
  Effortless operation gives any of three openings, or removable sash.
- **Weathertight Construction**
  Double contact with leak-proof watershed sill stops wind and rain.
- **Maximum Strength and Rigidity**
  Sturdy 14 gauge frame, electrically welded throughout. Fins welded to jambs for easy installation in block or poured concrete walls.

Also casement, utility and barn windows, Vento steel lintels for cost-saving block construction. Write for full information.

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Bookkeeping Device Helps Builders Figure Payroll Deductions

Construction industry payroll tax deductions are simplified by the Ayres payroll tax computer, which gives direct readings on a single line of accurate F.I.C.A. (F.O.A.B.) and withholding tax.

A turn of the finger-tip dial rotates a drum within a clear cylinder which reveals correct tax computations for any salary, no matter what the pay period or dependents.

To prevent obsolescence, this wage tax computer is so designed that new drum charts may be affixed. Drums are interchangeable for weekly, bi-weekly, monthly, and semi-monthly pay periods.

Special computors can be designed for any rate, data, and calculation procedures, by the manufacturer. Ayres Corp., Dept. AB, Box 1081, Wilmington, Calif.

Stop splitting profits and making damn'er marks—READY HUNG DOORS reduce nailing 72%.

ASK FOR **Ready Hung** DOORS

THE NEW DOOR AND FRAME PACKAGED UNIT

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FLEXIBILITY *for any plan . . . building or space*

Most Complete Line in the Industry

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Vulcan Fin-Tube radiation requires less piping, fewer fittings. Available cut to length in increments of 1" up to 12 feet. Ends threaded or chamfered for welding. Vulcan cuts "on the job" costs for every builder.

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Over Twenty-Five Years A Leader in Fin-Tube Radiation

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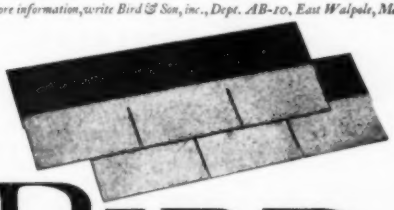
Quality since 1795

Even before Alexander Hamilton met Aaron Burr in 1804 in the most famous duel in American history, BIRD had started on the long and rewarding journey toward the successful American enterprise it represents today.

And today, Bird offers you the high quality and massive wear of the finest asphalt shingles at any price!

- ★ Thick butt construction, with *extra* layers of asphalt and firmly embedded mineral granules give added years of wear where it counts . . . on exposed tabs.
- ★ New pastel colors!
- ★ Fire-resistant, of course—certified by Underwriters' Laboratories.
- ★ 215 lbs. of working weight protect every 100 square feet of roof.

For more information, write Bird & Son, inc., Dept. AB-10, East Walpole, Mass.



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ALDRICH
Gulf Stream
C-SERIES
BOILER-BURNERS

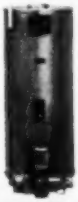
The Gulf Stream STANDARD
Shipped fully erected, with complete set of automatic controls: stack switch, thermostat and limit control.

Designed, Sized, Rated and Priced For Today's Low-Cost Housing Market

Aldrich produced this new line to meet today's urgent need: quality boiler-burners at a quantity price. Here is compact hot water heating with a saving of dollars, critical materials, space and installation time.

They meet the ASME code; they are designed for standardized production. Five separate sizes, with SBI net ratings ranging from 440 to 1120 square feet of water radiation.

Investigate this new line today. You'll find it profitable to sell, easy to install, economical to use.



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Available as internally galvanized, high-delivery hot water heater. Five sizes, with output from 100 to 255 GPH at 100° rise. Instant, steady supply of hot water for larger homes, motels, commercial units.

FEATURES

Multiple flue tubes baffled for maximum heat extraction
High combustion efficiency
Fast action
Instant hot water from tankless hot water coil
Aldrich burners coordinated to Gulf Stream boilers
For inspection and maintenance—readily removable top jacket and large opening to combustion chamber
Burners U.L. listed

The Gulf Stream PACKAGE
Fully erected package, pre-wired, accessory equipped, ready to set in place and connect.

For full details, **write or wire**

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ALDRICH COMPANY
Wyoming, Illinois

"The BARCO RAMMER Pays for ITSELF!"

Says PAUL SCHLEICHER & SONS
GARY, INDIANA, HOUSING CONTRACTOR

"SOIL COMPACTION with the Barco Rammer has been the key to *earlier completions* and *lower costs* for us," says Paul Schleicher & Sons, Gary, Indiana, housing contractor.

The Barco Rammer is a new tool with many uses! No longer is it necessary to wait for loose earth fill, or backfill, to settle — tamp it immediately to HIGH DEGREE COMPACTION under slabs ... around foundations and footings...on grades...in trenches — SAVE TIME! CUT COSTS!

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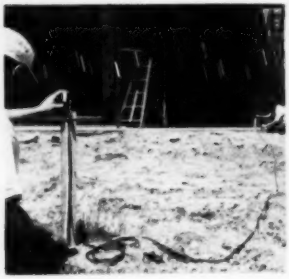
Builders of Portable Gasoline
HAMMERS and RAMMERS

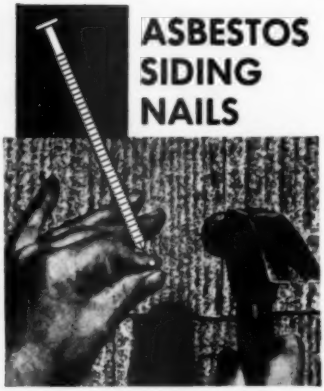
Modern Adaptation of an Old Leveling Device

Simple leveling for builders and others in the construction field can be accomplished with a 50-foot vinyl polychloride plastic tube filled with a red liquid.

The device can be used by one man. The user mounts one end of the tube at the construction point with



one of two universal clamps supplied with the device. The user then mounts the other end of the tube at any distance up to 50 feet. The liquid in both ends of the tube stands at the level line. It is also accurate for leveling jobs beyond 50 feet by using sighting guides or "leapfrogging." Levelall, Dept. AB, 89 Webster St., Rockland, Mass.



ASBESTOS SIDING NAILS

Hassall threaded asbestos siding nails are the choice of contractors throughout the country. Made of bronze and steel with plated finish. Note threaded shank which guarantees maximum holding power. Made of #14 gauge wire (.082) in 1", 1¼", 1½", 1¾" lengths. Advise quantities. Prompt shipment.

JOHN HASSALL, INC.
188 Clay Street
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Established 1850

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WHERE VENTILATION AND VISION...

ARE NEEDED IN GLASS BLOCK CONSTRUCTION...

Install

MARMET

GLASS BLOCK VENTILATORS

Enhance the beauty as well as the utility of glass block panels and walls . . . install the MARMET Ventilator, the practical window that provides ventilation and vision for glass block construction . . . can be used in groups, side by side or one above the other . . . available in stock sizes, but special sizes can be built to your specifications. MARMET Aluminum Louver Block may be used to replace a single 8" by 8" glass block panel . . . a self contained unit, glazed and screened with a metal louver on the exterior surface.

Complete catalogs of information upon request. Write for them today.

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ECONOMICAL, MODERN SCHOOL CONSTRUCTION

Build with efficient

RILCO BEAMS

Here's the economical, practical beam to use in modern, one-story school construction. Rilco Beams and Columns are custom fabricated from finest quality, kiln dried lumbers. They are not subject to checking, warping or twisting. Smoothly surfaced, cut to length and drilled for assembly hardware, they offer important savings in materials, time and labor

Rilco field representatives will gladly consult with you about your requirements or you may write for literature

RILCO WORKS WONDERS WITH WOOD

Laminated PRODUCTS, INC.
2511 FIRST NATIONAL BANK BUILDING • ST. PAUL, MINN.

Here's a Brand you can tie to, Partner

It's the Weldwood Brand of Hardboard

I'm STAN, the old stock hand from Weldwood STANdard Hardboard.

My sidekick is TEMP, from Weldwood TEMPered Hardboard. Temp is oil-treated, plastic-treated and water resistant.

And, partner, we rustle up a lot of stock of this pedigreed Weldwood Hardboard.

We keep builders and mechanics happy because we both "work" so well. Use *any* kind of tools and see how neat, clean and sharp every edge shows up.

And another thing, look at our nice light color. We take *paint*, even pastel shades, without any fuss or trouble.

Whatever you build, however you use Hardboard, look for the Weldwood *brand*. And place an order with your Weldwood supplier.

To meet all your requirements: both Standard and Tempered Grades of Weldwood Hardboard come in three popular thicknesses: 1/8", 3/16", and 1/4". In sizes: 4'x6', 4'x8', 4'x10', 4'x12' and 4'x16'. Panels up to 4'x12' are wrapped six to a package. Weldwood Tempered Tile Board is available only in 1/8" thickness and sizes 4'x4', 4'x8', 4'x12'.

Call your Weldwood salesman for Weldwood Hardboard or Tile Board today.

United States Plywood Corporation is the world's largest plywood organization, producing a complete line of decorative hardwood plywood, fir plywood, Novoply®, Weldtex® and other specialty items — as well as the most complete line of wood-faced flush doors on the market.

**Trade Mark registered*
Patented; other patents pending

WELDWOOD® Hardboard

Manufactured by Abitibi Power and Paper Company
Distributed Exclusively By

UNITED STATES PLYWOOD CORPORATION
55 West 44th Street, New York 36, N. Y.

World's Largest Plywood Organization
Branches in Principal Cities • Distributing Units in Chief Trading Areas

SWIFT Adding Machine

It's portable! Weighs 6½ pounds!

$99.50 plus tax

- For regular office use
- For car or field office

FASTER, EASIER FIGURING FOR BUILDERS, LUMBER DEALERS

Accurate, time-saving figuring—plus true portability! That's why builders and lumber dealers choose the Swift Adding Machine. So light and compact you can carry it everywhere in your office—to speed billing, figure material costs, take inventories. Or slip the Swift into its optional traveling case, and you can take it in your car to field offices or on business calls. Precision-made for years of service; guaranteed—with 9-column capacity, multiplication key, visible adding dials, sturdy steel case.

FREE Booklet! Write name and address in margin and mail to Dept. B SWIFT BUSINESS MACHINES CORP. Great Barrington, Mass.

SouthernBuildersTrade Cost-Cutting Ideas

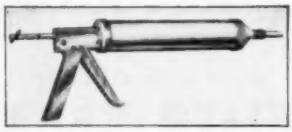
Frank Zusak (fourth from left) Shreveport, La., outlines sales methods and closing techniques

How to achieve further economies in home construction was the order of business as 17 Southern builders met recently in Biloxi, Miss., for a two-day exchange of "trade secrets." Called the Southern Home Builders Conference, the meeting was one of a series sponsored in various sections of the country by regional groups of the National Association of Home Builders.

An increasing public acceptance of contemporary design was called an encouraging factor in cutting costs by several discussion leaders, includ-

(*Continued on page 263*)

The Only CAULKING GUN GUARANTEED for LIFE



Uses Cartridge or Bulk Compounds

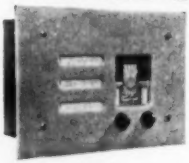
The BEAVER CAULKING GUN is precision made for longer life and better results.

- All working parts accurately machined.
- Extra heavy gauge barrels.
- Uses all caulking materials—handles light oils.
- Positive ratchet drive.
- Threaded nozzles—no bayonet joints to come loose.
- Guaranteed for life. Any gun damaged or worn out in service will be repaired or replaced by the manufacturer for only fifty cents.
- Three popular sizes—6½", 10" and 15". List prices—$6.50, $7.50, $8.50. Write for discounts.

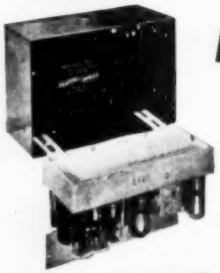
IMMEDIATE DELIVERY

WESTERN RESERVE MFG. CO.
3710 E. 93rd St. Cleveland 5, Ohio

BUILT-IN RADIOS *WILL SELL YOUR HOMES!*



- Fits in Standard 4" Partition
- Approved by Underwriters' Laboratories
- As easy to install as any Electrical Receptacle Outlet.



LOW COST!

Retail Price only $34.95 plus installation.

Special Trade Prices on Request

Panels Extra: Masonite $2.45. Plastic Colors $4.45.

Specifications on Request.
Territory franchises available to qualified jobbers and dealers.

FLUSH WALL RADIO COMPANY
Dept. AO, 1012 Cleveland Street, Clearwater, Florida

New BEVIL DEVIL Insulation Board Set

ALL-PURPOSE SET . . . the tools you need for insulation board jobs. Sharp, strong, specially ground blades cut through toughest insulation boards leaving clean, smooth edges. Three tools—five blades.

All for $5.85
Sent postage paid anywhere in U.S.A.

Extra Bevil-Devil Blades, of selected steel, ground to cut insulation board—package of 100 for $4.00, postage paid.

KIMBALL MANUFACTURING COMPANY, INC.
1629 SYCAMORE ROYAL OAK, MICH.

(Continued from page 262)
ing Floyd Kimbrough of Jackson, Miss., and Martin Bartling, Knoxville, Tenn.

All of the major factors in building, such as planning and design, construction methods, labor costs, merchandising, advertising, sales and customer relations, were taken up in detail with ample time allowed for discussion. While storage walls, slab construction, and other features of the modern house were covered, special emphasis was placed upon the selection and purchase of the materials that go into a house.

Frank J. Zuzak, Shreveport, La., outlined his method of buying lumber for an operation involving the building of ten houses or less a year. He makes a material list of all lumber, roofing and other items except subcontractors' material. This list is sent to all suppliers he has done business with in the past, and the contract award is made on the basis of the low bid. The material list is broken down into seven separate orders as follows:

(1) Sills, floor joists, roof rafters and framing lumber. (2) Subfloor, roof sheathing and roofing. (3) Siding, window and door frames. (4) Outside trim. (5) Sheetrock and doors. (6) Built-in cases. (7) Finishing materials. By this method the lumber yard can prepare the order in advance and supply the material as it is needed.

Fred Loucks, New Orleans, found that the use of grade beams, together with slab floors complete with moisture barrier, provides a saving of 15 per cent in foundation work.

Manny Delugach, Memphis, Tenn., establishes savings through a system of subcontracts that involve labor only. Materials are purchased by the builder. Carpentry is broken down into several contracts with a fixed price for each.

Other suggestions made were the use of electric bulbs in heat ducts to destroy odors; and the purchase of #3 fir for general use in carload lots in place of more expensive #2 pine.

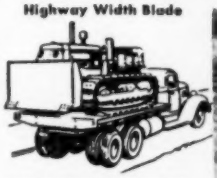
A. O. Smith Consolidates

Three new developments have been announced by the A. O. Smith Corp. of Milwaukee. They are the introduction of a line of warm air furnaces, the Lo-Boy and the Hi-Boy; consolidation of the water heater division and the heating division into a new Permaglas-Heating division with headquarters at Kankakee, Ill.; and transfer of the heating division's manufacturing facilities and marketing personnel from their present location at Toledo, Ohio, to Kankakee.

Completely New Type Tractor-Dozer FOR BUILDERS

Allis-Chalmers HD-9 Tractor with No Push-Beam Dozer

Highway Width Blade

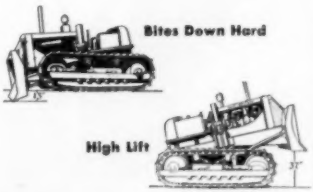


EASIER HIGHWAY TRANSPORT. Blade is but 8 ft. wide—no transport permit needed.

GREAT NEW TRACTOR. New Allis-Chalmers HD-9 Tractor has power, traction and balance that put it in a class by itself . . . outstanding lugability with powerful 72 drawbar hp. GM 2-cycle diesel engine — superior traction with larger track, wider tread — better balance with blade mounted close to tractor.

NEW DOZER DESIGN eliminates push beams. Blade is mounted directly to tractor frame, making it integral part of tractor. Track main frame and dozer raise and lower together.

STEEPER BLADE PENETRATION. Close-mounted blade bites down hard to full 13 in. below tracks on level ground for steep digging. This close mounting plus high, 37-in. lift also permits steeper climbs out of basements.



LIGHTER, MORE STABLE, LESS WEAR. Almost 1,150 lb. lighter than standard dozer. Costs less to buy. With blade mounted 15 in. closer to tracor, center of gravity is changed only slightly. This means better stability, less wear on tractor front truck wheels and idlers.

TRUER CUTTING OF BASEMENT WALLS with high, 46-in. blade, unusual control.

A REAL "MUDDER." Because blade can be lifted clear of mud, track oscillation is doubled, machine is not nose heavy.

SIMPLIFIED SERVICING. 1000-hr. lubrication of truck wheels, idlers, support rollers. Unit construction permits removing tractor assemblies without disturbing companion parts. Lubrication and servicing points easily accessible.

OPERATOR GETS MORE DONE. By pulling single lever he shifts from any of six forward speeds to any of three reverse speeds. This, plus close, frame mounting of blade, with no spring deflection, means fast action for most accurate leveling or digging. The HD-9X compares in performance with conventional dozers weighing five to six thousand pounds more! Write for bulletin on this outstanding new tractor-dozer for builders — or see your nearby Allis-Chalmers dealer.

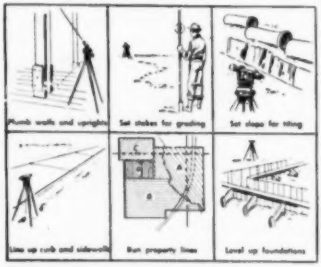
ALLIS-CHALMERS
TRACTOR DIVISION • MILWAUKEE 1, U. S. A.

White Universal Level-Transit...

the most versatile instrument you can own!

YES, the White "Universal" Level-Transit is the most practical, complete instrument on the market. Now available in a new improved model — the No. 3000 — with internal focusing, coated optics, guarded vertical arc. In fact, every feature to assure you lifetime durability and accuracy. And the price is *only $185**, complete with tripod. See your dealer, or write DAVID WHITE COMPANY, 311 W. Court Street, Milwaukee 12, Wisconsin.

Indispensable for all these jobs and many more



DAVID WHITE COMPANY

We offer the most expert REPAIR SERVICE on all makes, all types of instruments.

**Price subject to change without notice.*

7195

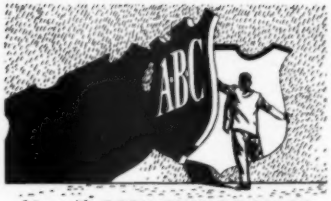
New York State Issues 300-page Handbook As Guide to New Code

One of the most complete manuals of basic house construction practices yet prepared has just been completed by the New York State Building Code Commission to guide officials, builders, architects and others in their interpretation of the state's basic performance code covering one- and two-family dwellings.

Reported to be the first manual ever issued as a companion to a specific code, the 300-page looseleaf handbook is expected to provoke wide interest among code authorities everywhere. It contains more than 275 detail sketches and nearly 50 tables in explanation of the code. However, commission officials caution that all descriptions given are intended merely to serve as a guide. They emphasize that any technique, equipment or product meeting performance requirements is acceptable whether or not described or illustrated in the manual.

The handbook is divided into five parts corresponding to the major subdivisions of the code: general provisions, space standards, structural standards, fire safety standards and equipment standards. Supple-

(*Continued on page 266*)



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By selling on easy ABC monthly payments, you open the door to the world's largest retail market—the instalment buyer. You immediately compete on the EASY SELLING LEVEL with every business in your area. You'll close more deals on the spot, and for larger amounts.

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18 PROFITABLE SALES FEATURES!

Many of them Exclusive in BESSLER Disappearing Stairways

1. The ORIGINAL disappearing stairway—made for over 40 years.
2. A *real* stairway—not a ladder.
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6. Operates from above and below.
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8. ALL steps are of equal height.
9. Treads and stringers are made of Sitka Spruce.
10. Full door width provides ample access for large objects.
11. Full length SAFE hand rail.
12. Accurate architectural design assures easy and SAFE ascending and descending.
13. All metal parts are made of strong, SAFE pressed steel.
14. Repairs always available on quick notice for all models—no "orphans."
15. Doors made of White Pine and Fir in two-panel type: flush doors in hardwood only.
16. Tailor-made for all heights—no short or long steps.
17. Proved in performance—hundreds of thousands in constant daily use.
18. IMMEDIATE DELIVERY!

***FREE!* New Catalog!**

Illustrates and describes complete line of seven Bessler Disappearing Stairway Models to meet all your needs. This new catalog should be in your files for ready reference—write for your copy now!

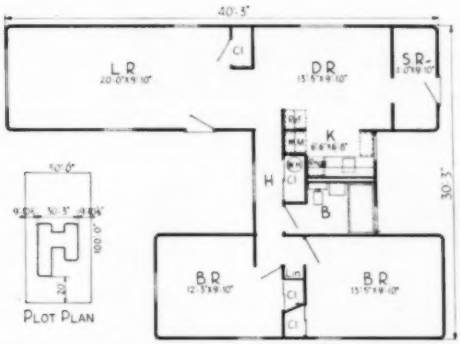
The Bessler Disappearing Stairway Co.
1900 East Market St., Akron 5, Ohio

BESSLER—best for over 40 years!

New Movable House is Assembled in Room Units

The Pressed Steel Car Co. has come out with a new type of movable housing called Unishelter. Consisting of three separate sections, a two-bedroom Unishelter house comes from the factory complete. All the buyer has to do is to place it on a wood or concrete post foundation, bolt the sections together, connect the utilities and move in. The house is delivered with complete kitchen and bathroom

Windows are steel casements, equipped with roto-type hardware and screens. A terrace roof is provided, made of Corrulux and mounted to a beamed construction. A wide choice of interior and exterior finish color is available



The large unit is placed first, on fine concrete footings, two of which are L-shaped and shared by the kitchen-bathroom core. This center core gets a third point of gravity support by sharing one of the four footings which support the bedroom section. The kitchen core is placed second, being pushed up against the main section and lag-bolted to it. The bedroom section is then bolted to the central core. Sixteen lag bolts in all are used, and a rubber gasket material lines the joining edges for weatherproofing. The large section weighs around 9,000 pounds

equipment installed, all piping in, also hot water heater and the heating system, which is a bottled gas furnace delivering forced warm air through wall registers.

Sections are transported to the site by standard trucking equipment and can be arranged in a variety of ways to permit versatility of floor plan and elevation.

The Unishelter units are built by a new system of con-

(Continued on page 267)

Kirlin BUILT-IN LIGHTING

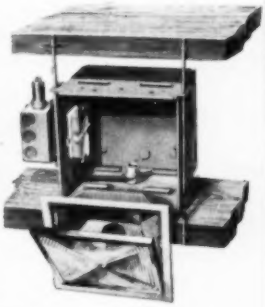
INDICATES A "COMPLETE" HOME

Nothing dangles from Ceiling

HELPS SELL THE HOUSE!

Installed cost is less than cheap units!

National advertising of Kirlin Built-In Lighting in such magazines as Better Homes & Gardens, House Beautiful, Good Housekeeping, etc., encourages appreciation of ceilings unmarred by dangling fixtures and tells of the adequate, diffused light from lower wattage bulbs possible only with the original Kirlin.



They cost you less installed; no asbestos wire required. Have rust resisting fronts; can be used on porches, etc. U. L. & I. B. E. W. labels. In stock at Lighting Wholesalers everywhere.

Guaranteed by Good Housekeeping

THE GENUINE BEARS THE NAME Kirlin

THE KIRLIN COMPANY, 3435 E. JEFFERSON AVENUE
DETROIT 7, MICHIGAN

Please send literature and specifications on genuine Kirlin Built-In Lighting Fixtures.

NAME_____

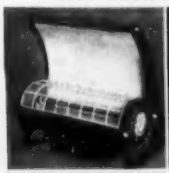
ADDRESS_____

CITY_____ ZONE_____ STATE_____

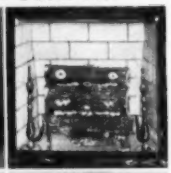
Choice of Leading Architects and Builders . . . for Over 31 Years

A top-quality, economy line of Modern-design auxiliary heaters for any confined area where quick, efficient, low cost "extra heat" is required. Choice of many styles' from 600 to 3000 watt capacity. All with new GLOBAR non-metallic 5-year heating elements having added Infra-Red health features. Finished to conform with any interior. UL listed and approved.

Specify SHEPLER for Year 'round COMFORT



ELECTRIC PORTABLE ROOM HEATERS



GAS and ELECTRIC FIREPLACE LOGS

Also Makers of RADIA VENTILATING EXHAUST FANS

• DISTRIBUTORS ATTENTION
For PROFITABLE additions to your present lines get the facts on Shepler Ventilating Fans and Heaters. Write for full information today

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1229 GOEBEL STREET
PITTSBURGH 33, PA.

SEND FOR COMPLETE CATALOG

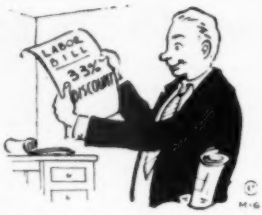
(*Continued from page 264*)
mentary pages based on continuing tests and acceptances by the commission's technical staff will be added, it is reported, to keep the manual "a dynamic and up-to-date instrument for interpretation of code provisions."

The book is being distributed in limited quantities without charge to municipalities operating under the state code. Copies are being made available to others at $2 each, upon application to the commission office at 1740 Broadway, New York City.

To Publish Directory Of Modular Products

A directory of modular products—a geographical listing of firms making building materials in stock sizes suitable for modular-dimensioned construction—is being prepared for publication by the Modular Coordination office at the headquarters of the American Institute of Architects in Washington, D.C. The office was established by the Producers' Council.

The directory will be part of a booklet reproducing sample modular working drawings selected to demonstrate how to derive the most benefit from the modular system, to be distributed at no charge to architects, builders, contractors, designers and draftsmen.



Save the cost of high paid finish carpenters—less skilled, lower paid men can install READY HUNG DOORS.

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THE NEW DOOR AND FRAME PACKAGED UNIT

READY HUNG DOOR CORP., DEPT. A
FORT WORTH, TEXAS

DUR-O-WAL
TRUSSED *Design*

The Quality plus the Gross Area of the Steel will alone determine your Net Results

Strength comparison	Area	Strength
2¼" Round Rods, 55,000 lbs. steel	.0982	5401 lbs.
Standard Dur-O-wal, 3 No. 9 Rods, 100,000 lbs. steel	.0518	5181 lbs.
Extra Heavy Dur-O-wal, 2-3/16" Rods, 1 No. 9 Rod, 100,000 lbs. steel	.0724	7247 lbs.

With this strength comparison PLUS the added mechanical bond provided by the unique triangle construction and the high tensile strength steel provided in a small area, it is easy to see why Dur-O-wal is the reinforcing member to specify for buildings you design. **Cedar Rapids Block Co., Dur-O-wal Div., 658 12th Ave., SW., Cedar Rapids, Ia.; Dur-O-wal Products, Inc., P. O. Box 628, Syracuse 1, N. Y.**

Door into storage room, off dining end of living room, is tempered Masonite Glide-all. Same type is used in bedroom closet. All other interior doors are hollow core, flush-type, 1 3/8-inch thick

New Movable House

(Continued from page 265)

struction which Pressed Steel calls "unicel," meaning unit-cellular. Walls, roof, and floor consist of one continuous inner and outer sheet of plywood glued to a semi-cellular construction using kiln-dried hemlock or Douglas fir members. The layers of plywood are placed grain-against grain and laminated with special plastics under many tons of pressure and 50,000 watts of radio frequency heat to a soft-core center into which insulating material is packed.

Laminated curved sections of layers of selected woods, bonded by electronic methods, join the walls, roof, and floor. The layers of veneer are preformed, thereby avoiding the introduction of internal stresses and strains. Insulation is fiberglas and is in all partitions as well as outside wall, floor and roof.

Plywood used in the Unishelter is all exterior grade, with waterproof joints that will withstand boiling water. All exposed surfaces, inside and out, are treated with specially developed phenolic resins for additional protection. Floors are covered with asphalt tile over a felt base.

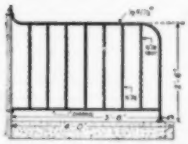
Pressed Steel officials stimate that Unishelters can be supplied in project quantities for under $8,000.

The contemporary style of home decoration, with its clean, uncluttered lines, lends itself well to space of this dimension

AVAILABLE NOW!

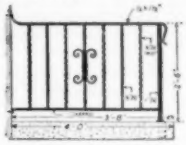
METAL CRAFTERS

Ornamental Railings



Number	Length	Platform Size	List Price Per Pair
GI-32"	2'-8"	3'-0"	$18.99
GI-38"	3'-2"	3'-0"	20.50
GI-44"	3'-8"	4'-0"	22.04

Model GI is a simple, yet graceful design which meets the demand for a low-priced railing.



Number	Length	Platform Size	List Price Per Pair
MC-32"	2'-8"	3'-0"	$20.26
MC-38"	3'-2"	3'-0"	21.91
MC-44"	3'-8"	4'-0"	23.56

Model MC is a moderately decorative railing which meets the approval of the mass market.

- Attractive Designs
- Moderate Prices
- Generous Discounts

Year after year, this company has been a dependable source of supply for Ornamental Railings. We have successfully met all the needs of our Dealers and we hope to take good care of them again in 1953 . . . always, featuring attractive designs, top quality, moderate prices and generous discounts. Send today for catalog and price list. All prices are **delivered** prices.

Distributors:

In Canada: **Romson-Metal Crafters, Ltd. 1558 Howard Avenue, Windsor, Ontario**

In Central and South America, West Indies and Middle East Countries: **Joseph R. Awad Co., Inc., 99 Wall Street, New York 5, N. Y.**

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Cedar Rapids, Iowa

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A NEW Service to Your Industry

- PRESSURE CREOSOTED TREATMENT
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- Treated in our modern, new treating plant at Diboll, Texas. Write or wire for full information.

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Pressure TREATED MATERIALS

Ponderosa Pine Standard Circulated for Review

A "Recommended Commercial Standard for Standard Stock Ponderosa Pine Insulating Glass Windows and Sash" has been circulated by the Commodity Standards Division, Office of Industry and Commerce, to manufacturers, distributors and other interested groups for their review and comment, the U. S. Department of Commerce has reported.

This voluntary standard was proposed last January by the National Woodwork Manufacturers Association, and subsequently adjusted to meet the consensus of other interested organizations. The recommended standard is now being circulated to the trade for written acceptance in order that it may become more widely effective through establishment as a commercial standard published by the Department of Commerce.

Mimeographed copies of the recommended standard may be obtained, as long as a limited supply lasts, from the Commodity Standards Division, Office of Industry and Commerce, U. S. Department of Commerce, Washington 25, D. C.

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LOWEST PRICED FIRST-QUALITY EXHAUST FANS *on the market!*

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Fully automatic Clear-Aire Kitchen Exhaust Fans help sell more new homes faster! In 8 and 10-inch standard and deluxe wall and ceiling models, for brick or frame construction. G. E. Motor, two-unit construction, mirror-bright chrome finish! Compare quality, compare price—you'll choose CLEAR-AIRE! Send coupon for descriptive literature and prices!

Selected territories open for Manufacturer's Representatives! Write for details!

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"Clear-Aire—you see them everywhere!"

Sin-Jin Products
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Gentlemen:
Please send literature and prices on Clear-Aire Kitchen Exhaust Fans.
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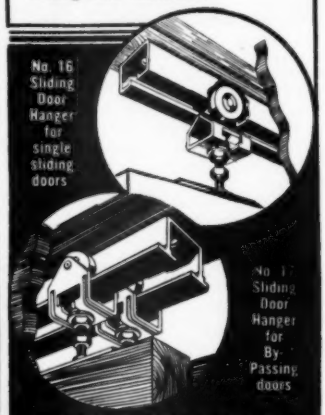
GRANT SLIDING DOOR HARDWARE *of Course!*

You couldn't ask for a more complete line of sliding door hardware! Over 55 years of experience lie behind every Grant Hanger — experience shown in the quality of Grant Sliding Door Hardware.



GRANT HARDWARE FEATURES

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- For all door sizes — up to 50 lbs. per door!

The foremost name in Sliding Devices

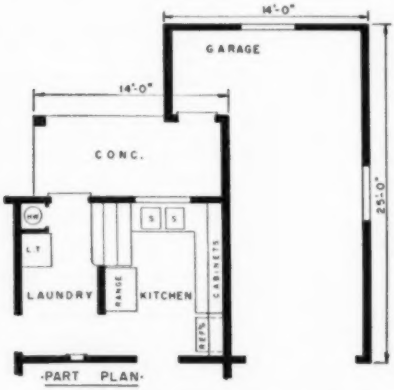
Send for complete catalogue on all Grant Hardware.

GRANT PULLEY & HARDWARE CO.
31-85 Whitestone Pkwy.
Flushing, N. Y.

Tie-in the Garage with Kitchen Traffic

Door into garage off back stoop is only a step from utility room door. Kitchen window at right

A functional twist to attached garage design is given in this small house built in Monte Vista, Calif., by J. Taylor Fretwell. Garage is extended slightly across back of the house and is thus tied in with the concrete slab back porch. This arrangement provides a sheltered access from garage to back entry (utility room) door.



Once inside the back entry, groceries can be deposited upon kitchen counter without carrying them around kitchen partition. This is achieved simply by omitting several feet of wall between utility room and kitchen. The tile counter can also be used as a breakfast bar, by placing stools in utility room

DON'T LET "RUST-MEASLES" RUIN THE HOMES YOU BUILD

NEVER-STAIN ALUMINUM NAILS will NOT rust or streak. They offer low-cost insurance against premature repainting or redecorating—thereby saving your clients from $300 to $500. Ordinary nails will cause unsightly rust stains and streaks to mar the beauty of the homes you build.

Protect the homes you design and build — specify and insist on

NEVER-STAIN ALUMINUM NAILS

COST FOR THE AVERAGE HOME LESS THAN $4.00

NEVER RUST-STREAK OR STAIN PAINTED SIDING—SAVE COSTLY PRE MATURE REPAINTING

NO COUNTERSINKING OR PUTTYING

A $40 to $60 SAVING

POSITIVE PROTECTION FOR WOOD & INSULATED SIDING CEDAR & ASBESTOS SHINGLES

NEVER-STAIN ALUMINUM NAILS

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MEET FHA REQUIREMENTS

Ever Get a NAIL by MAIL? Send today for FREE SAMPLES

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YES! I'm interested in Never-Stain Aluminum Nails. Send me free samples. I am:

Please Check ☐ Prospective Home Owner ☐ Now Own My Home ☐ Builder ☐ Carpenter ☐ Architect

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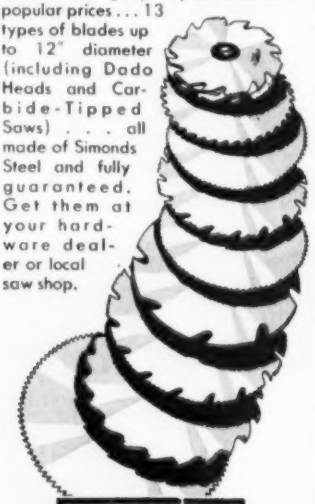
Look at these LOW PRICES for SIMONDS SI-CLONE SAWS"

RIP • CUT-OFF • EASY-CUT and COMBINATION

6" .. $1.75	9" . $2.65
7" ... 2.00	10" .. 3.15
8" ... 2.15	12" .. 4.35

Supplied with round or special-shape center hole for portable electric hand-saw machines.

Simonds, sawmakers for woodworkers since 1832, now offers this complete new line of high quality saws at new popular prices . . . 13 types of blades up to 12" diameter (including Dado Heads and Carbide-Tipped Saws) . . . all made of Simonds Steel and fully guaranteed. Get them at your hardware dealer or local saw shop.



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Factory Branches in Boston, Chicago, San Francisco and Portland, Ore. Canadian Factory in Montreal, Que.

Renovation of Large, Old Homes Seen as Big Future Market

Extensive modernization and renovation of the nation's large old homes will be one of the significant developments of the next decade, according to recent statement by H. R. Northup, executive vice president of the National Retail Lumber Dealers Association.

At least 7 million of the nation's homes already are 50 years or more old, and another 6 million will reach that age by 1962, Northup said.

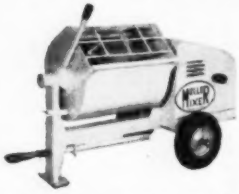
He pointed out that while some of these old residences are so obsolete that they should be removed, a good many others are structurally sound and can be modernized at reasonable expense.

It is probable, he added, that a high percentage of those which are renovated will be subdivided into two or more dwelling units, where zoning regulations permit, thereby giving more families an opportunity to live in preferred close-in locations at moderate cost.

CHANGING YOUR ADDRESS? *Then please send your new address to Subscription Dept., American Builder, Emmett St., Bristol, Conn., together with your old address, three weeks in advance of next issue date.*

CONTRACTORS—save money!

Mix plaster and mortar in a MULLER 3 FOOT MIXER



• An investment that will give you better plaster and mortar at far lower costs than old hand methods. Ideal for both inside and outside use. Holds full bag batch of most mixtures.

PRICE $312 (with electric motor)
$330 (with air-cooled engine)

FOB Metuchen, N.J.

Also available in 6, 9 and 12 cubic foot sizes

Write for name of nearest distributor.

MULLER MACHINERY COMPANY, Inc.

Metuchen 4, N.J. Cable Address MULMIX

NEW FULL OCTAGON "100 PLUS" HAMMER

No. OH11½ Nail Hammer— Power Balanced — Distinctive Octagon Head — Perfectly Proportioned Octagon Handle.

From the moment you grip it, swing it, you can tell that this is the finest hammer that money can buy.

In the Stanley Full Octagon Hammer you get a forged alloy steel head, perfectly heat-treated and tempered. You get Stanley's famous "Evertite" processed, triple-wedged handle—comfortable and beautiful in a lacquer finish that reveals its straight-grained wood. These Stanley hammers are part of a complete line of Stanley Tools—found in the kits of better builders everywhere. Look for the famous Trade Mark STANLEY at your dealer's. Stanley Tools, New Britain, Connecticut.

No. 11½ Nail Hammer

"100 Plus" Aristocrat for those who prefer the regular handle. All of the fine Stanley features.

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HARDWARE • TOOLS • ELECTRIC TOOLS
STEEL STRAPPING • STEEL

Construction Courses Offer Opportunities

by James W. Goff

Several years ago this magazine reported on the establishment of four-year college courses in a number of the nation's colleges and universities for the express purpose of training men for the light construction industry. At that time these four-year courses were in their infancy, the total number of graduates did not exceed five in the entire country. This article is, in essence, a progress report on what has been accomplished in the intervening years.

No exact figures on the number of graduates from all schools which have

James W. Goff

offered this four-year light construction industry course are available. It is believed, however, that no more than 800 men have completed the courses to date. The highest number of graduates was reported by several schools to have been achieved in June of 1950 when the veteran enrollment was at its peak. Employment opportunities far outnumbered the graduates available to fill them. At one school, which graduated some 35 men this June, there are still at least that many unfilled positions in the opportunity file. A gratifying phenomenon in this respect is the demand for more graduates by those employers who already have one or more working for them. Another unusual thing is that it is entirely possible to place all men in the field they have chosen, something relatively unheard of in other college courses.

When these four year programs were first set up it was the universal practice to attach them to departments which were already in existence at the school. In addition, the programs were filled with courses which were already being offered for some other purpose. For example, at

(*Continued on page 272*)

SLASH Fastening Costs in Steel and Concrete with New Ramset JOBMASTER

10 STAR VALUES increase ease, speed, utility and economy of proved RAMSET SYSTEM

Faster loading, one-hand operation with trigger action, hairline accuracy controls, shorter, more compact design and other important features make the new RAMSET JOBMASTER the unmatched tool for high-speed, low-cost, effortless fastening into steel, concrete and other approved materials.

On-the-job experience (not stop-watch laboratory figures) shows less than a minute per fastener from start to finish—faster on continuous work. Most jobs prove dollar savings up to 75%, time savings up to 90%. For almost any kind of construction fastenings, nothing sets like RAMSET!

Tru-Set Fasteners hit the spot

Guided by the exclusive, elasticized Red-Tip Pilot, Tru-Set Fasteners go straight to the work—penetrate and hold tightly at the exact spot designated. With 54 sizes and types of Tru-Set drive pins and threaded studs, you can select just the one you need for any specific job.

For new ease, new speed, new utility, new economy, ask your dealer today to demonstrate RAMSET JOBMASTER and Tru-Set Fasteners. Or, write us for details.

Ramset Fasteners, Inc.

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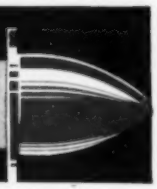
12117 BEREA ROAD • CLEVELAND 11, OHIO

Product Patent No. 2470117. Other Patents Pending.

DON'T HAND SET... Ramset WITH TRU-SET FASTENERS



Annular-threaded metal weather strip nails . . . FOR GREATER HOLDING POWER

USERS REPORT, Apr. 4—"Fast replacing the old fashioned unthreaded nail!"

Established 1850

Plated for maximum rust resistance. Early delivery in packages and in bulk. Write for prices and samples.

Hassall

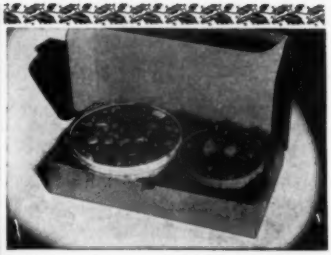
JOHN HASSALL INC.
192 CLAY STREET
Brooklyn 22, N. Y.

(*Continued from page 271*)

Michigan State College the architectural drawing courses which light construction men were required to complete were originally set up for and were still being used by home economics classes when the previous article was written. There were many other parallel examples at Michigan State and in other colleges. This situation has changed to a large extent.

Michigan State now has a complete series of drawing courses designed particularly for the men who will enter the light construction field. The other schools, which had similar problems, have taken and are taking steps to give the building industry program the specific courses it needs to insure that the graduates will be adequately trained. Denver University administers its light construction program through a special department in the school of commerce. The University of Wisconsin has much the same set-up for its program. In nearly all the institutions which offer this building curriculum, the students are well grounded in business administration. Typically, a student will take at least a year of accounting, one semester of business law, and a year of real estate law and prac-

(*Continued on page 273*)



Build Goodwill with HOENSHEL Gift-Wrapped BUSINESS GIFTS . . . for Friends, Customers and Employees at Christmas.

HOENSHEL BRANDIED FRUIT CAKE

Rich with choice glace fruits and choice nuts—"The Fruit Cake with a Flavor!" This wonderful cake is packed together with an assortment of hand dipped, hand rolled chocolates—both items in decorated tins and enclosed in a strong holiday outer carton (ideal for Overseas Shipping too).

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No Shopping . . . No Packing . . . Let us handle your entire gift list—for one or one hundred—size does not matter. Mail your instructions to us; we will ship direct to your friends, each package with a beautiful gift card bearing your name.

WRITE TODAY FOR LITERATURE AND PRICES. We will gladly submit samples at your request.

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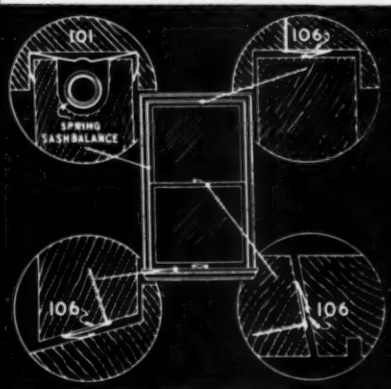

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TRIPLE SEAL
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AVAILABLE AT YOUR LOCAL LUMBER DEALER. YOU'LL LIKE IT!

THE WEATHERPROOF PRODUCTS CORPORATION
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Shinglstik STOPS BLOWING SHINGLES

TURNS COMPLAINTS INTO SALES

FREE SAMPLE

SEE HOW EASY TO APPLY, SHINGLSTIK REALLY IS!

Get your FREE Shinglstik sample now! See why this method of sealing asphalt roof shingles down against winds of hurricane intensity is absolutely 100 per cent efficient! Cuts costly return calls.

ON ANY BRAND SHINGLES . . .
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Shinglstik WORKS QUICKLY AND EASILY

Shinglstik is produced through years of experience in the asphalt roofing industry. Shinglstik doesn't string out, seals quickly (4 hour tack . . . one week bond), and is permanent protection. Get your FREE Shinglstik sample now! Turn complaints into sales with customer satisfaction . . . with Shinglstik.

FREE SHINGLSTIK SAMPLE

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7600 Truman Road Kansas City, Mo.

Send letter or postcard to: Shinglstik, 7600 Truman Road, Kansas City, Missouri. Include your name, address, dealer and brand name of shingles you use.

Samples cannot be distributed without supplier information. Limited to territory between Allegheny and Rocky Mountains.

(*Continued from page 272*)
tices. Other business courses which schools may require are: marketing, salesmanship, credits and collections, and insurance. Practically all the schools require several courses in estimating, and these usually go into estimating plumbing and heating systems as well as the general construction work. Most schools require the men to take a course in wood technology, in order that they might familiarize themselves with the most important material they work with.

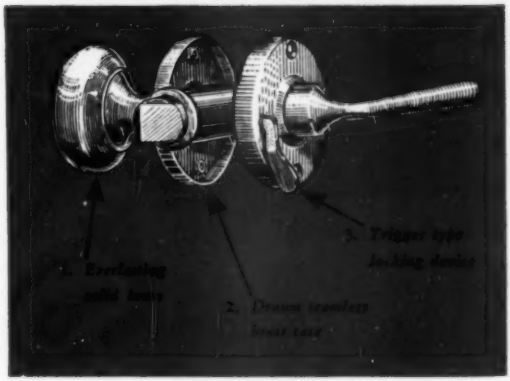
If the character of the courses as described above seems to vary a great deal from school to school, the character of the student does not. At the several schools which the writer has visited, the men enrolled in the light construction program were as individualistic as the builders and lumbermen which they will become. As a rule they were older than the average student in the institution, and a great deal more serious. All were intensely interested in their chosen field, and a great many were already active in the field in some capacity or other. After leaving a group of students at Denver University, the writer had seven business cards, the donors of which were real estate salesmen, lumber salesmen and building specialty salesmen. Others, who didn't have cards were carpenters, plasterers, and masons. At least one of these men was doing contract work on his own while enrolled in school.

One other student activity of note is the loan fund for needy students which was set up at Michigan State College by the local chapter of Sigma Lambda Chi, the honorary fraternity for the construction industry students. This fund has been in existence only a little over a year, but has grown from its feeble beginning balance of $50 to well over $1300 at this writing. The money is

(*Continuedon page 274*)

Mr. Goff, the first graduate of a light construction industry course to receive a master's degree, is an M.S. in Wood Technology, Michigan State College. With one year of work in chemical engineering, Mr. Goff entered the Army of the United States for the duration of World War II. He matriculated as one of the first students in light construction at Michigan Sate, and completed both undergraduate and graduate courses while working as a carpenter (he holds a journeyman carpenter's card) and supporting a wife and four sons. Currently he is an instructor in the Department of Forest Products, Michigan State College, and is sudying for his doctor's degree. He is also national secretary of Sigma Lambda Chi, light construction honorary fraternity.

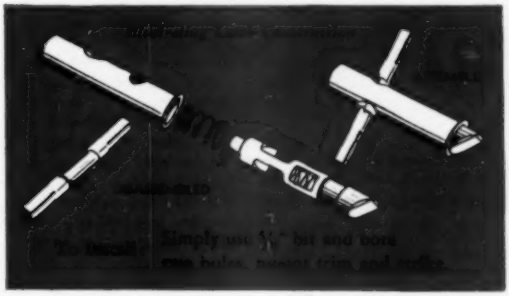
Try this combination for VOLUME SALES!



- *Permanent Beauty*
- *Simple Installation*
- *Trouble-Free Service*

...ALL IN ONE SCREEN AND STORM DOOR SET

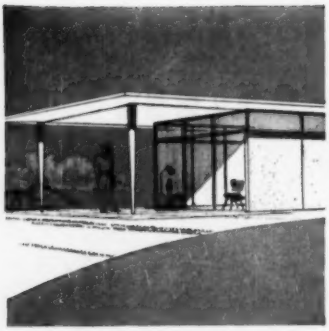
Where else can you find a *proven* unit like this that makes every customer a prospective buyer? Made of permanent-beauty solid brass, this efficient screen and storm door set has a *guaranteed* Trigger Type Locking Device that can't catch clothing. Its unique spring type construction *automatically* compensates for slight drilling errors in installation. And its *seamless* brass case can't fail mechanically. Details on prices, weights, finishes and new franchise arrangements on request. Write today!



Earle

HARDWARE MANUFACTURING CO.

Reading, Pa.



What's underneath this

CONCRETE IDEA FOR BEAUTY?

CLINTON
WELDED WIRE FABRIC

Floors, walls, roof decks, steps, driveways and walks...everywhere reinforced concrete is used, Clinton Welded Wire Fabric is a favorite with builders—here's why:

Simple to Form and Shape. Clinton Welded Wire Fabric possesses the proper flexibility to make it easy to bend, form or shape right on the job. It is sufficiently rigid to hold its shape after forming.

Easy to Handle and Place. Both the heavy and light gauges of Clinton Welded Wire Fabric flatten quickly and easily from the roll.

When you want information on Clinton Welded Wire Fabric—write for "Design Manual On Home Construction."

THE CALIFORNIA WIRE CLOTH CORPORATION • Oakland
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WICKWIRE SPENCER STEEL DIVISION • New York

CLINTON
WELDED WIRE FABRIC
THE COLORADO FUEL AND IRON CORPORATION
CF&I

(*Continued from page 273*)

available on 24 hour notice to any deserving student in the light construction program, and has been well used during its short life. Students have done a major portion of the work on this project, and contributions have come from lumber dealers, lumber associations, builders groups, and interested alumni.

The future of the program looks at least as rosy as it did when the previous article was written in 1947. The industry has experienced a boom and leveled off near the peak of that boom. A great demand still exists for adequate housing, the number of new families is still increasing and the impact of the high war and postwar birth rate will not strike until the 60's when the babies born in those periods begin to form families. In addition there is a tremendous replacement market in housing waiting to be developed, it has been estimated that it will take well into the next century to replace all the houses that were considered substandard in 1935 if replacement is continued at the current rate. The knowledge of sound business practices coupled with the knowledge of both old and new building techniques which light construction graduates are bringing to the industry cannot help but bring new prosperity to the building business.

The future of the course is also dependent on help from the industry. This help has been given generously by a few groups in the past and these groups are still vitally interested in the program. The help needed is not primarily financial in most cases, but is rather along the lines of getting young men interested in the industry. The demand for graduates is greater than the supply, and before more graduates can be produced there must be a greater enrollment in the schools. Every builder can help by seeing that his young employees, his sons, and his neighbors' sons know of the opportunities for a career in the building industry. The schools listed on page 284 will be glad to furnish you with all the information available on the courses which they offer.

New Redwood Kit

A new kit for the promotion of redwood sales has been prepared for retail dealers by the California Redwood Association. The kit consists of newspaper advertising mats illustrating the use of redwood, along with suggested copy. Additional information about the service can be obtained from the association at 576 Sacramento St., San Francisco 11, Calif.

Avoid embarrassing work-overs! READY HUNG DOORS eliminate rework time.

ASK FOR
Ready Hung DOORS

THE NEW DOOR AND FRAME PACKAGED UNIT

READY HUNG DOOR CORP., DEPT. A
FORT WORTH, TEXAS

The Only Guaranteed—Nationally Advertised

RED CEDAR CLOSET LINING

BROWN'S
SUPERCEDAR

SEAL-PACKAGED
ALL WIDTHS 40' TO PKG.

Our national advertising is currently producing thousands of customer inquiries which are turned over to our dealers for follow-up. This interest in cedar closet lining represents a growing and active market. Brown's Super-Cedar is a fast-moving, profitable item as produced by the largest and oldest experts in the business. Sold only through leading jobbers and millwork distributors.

Write for Builders Folder and Consumer Booklet

PRODUCT OF
GEO. C. BROWN & CO., Inc.
GREENSBORO, N. C. Established 1896
... LARGEST MANUFACTURERS OF AROMATIC RED CEDAR IN THE WORLD

IN WINDSOR LOCKS, CONNECTICUT, the George Vadnais Construction Company has been including Westinghouse Appliances with its attractive Old County Manor Homes. Home buyers have been quick to see this *extra* value for their money.

FIRST DAY SELL-OUT

Westinghouse Appliances Aid Sales Program of Builder George Vadnais

Recently fifty new homes were placed on sale in Section One of Old County Manor. All were sold out on the first day of advertising the model home!

Says Mr. Vadnais, "I believe it fitting that we express our satisfaction and success with the use of Westinghouse household appliances. It is interesting to note the acceptance and desire of the purchasers to acquire Westinghouse with their homes. We look forward to more subdivisions and more Westinghouse."

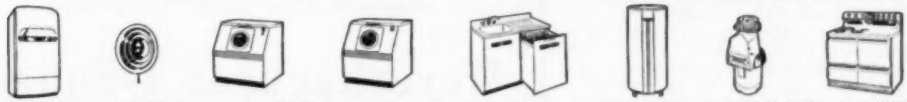
You, too, can merchandise your homes with Westinghouse Appliances. For more details, call our nearest distributor or write direct.

WESTINGHOUSE ELECTRIC CORPORATION
Electric Appliance Division • Mansfield, Ohio

HOME BUILDERS all over the country, whether offering a few houses or larger developments like Old County Manor, above, are finding Westinghouse brings them faster and easier sales.

TYPICAL KITCHEN at Old County Manor contains Westinghouse Range, Refrigerator, Laundromat® and Water Heater. People want, buy and like their appliances backed by a brand with national acceptance.

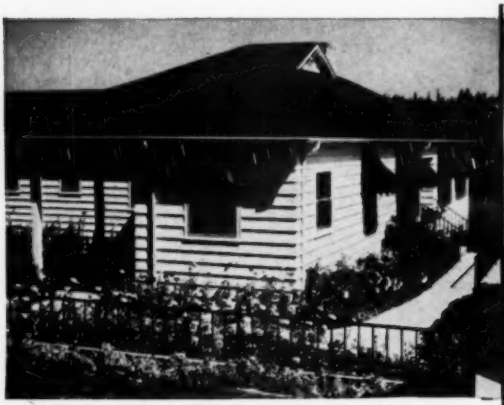
A FULL LINE OF ELECTRIC APPLIANCES, MODELS AND SIZES



FROST-FREE • VENT FAN • LAUNDROMAT • DRYER • ELECTRIC SINK • WATER HEATER • WASTE-AWAY • RANGE

YOU CAN BE SURE ...IF IT'S Westinghouse

So many ways to use... this abundant ability wood



West Coast Hemlock bevel and bungalow siding is highly adaptable to many styles of modern home design.

Kitchen cupboards and cabinets of wood are growing in popularity. West Coast Hemlock does much to accelerate this trend.

Weyerhaeuser 4-Square

WEST COAST HEMLOCK

How well do you know Hemlock? Not by hearsay . . . but by actual use . . . by working with it . . . nailing and painting it?

West Coast Hemlock is entitled to a fair evaluation on every single merit of its own, for West Coast Hemlock is a different type of wood from other Hemlocks. It is one of our leading softwoods. There are abundant stands of Hemlock. It will long continue to be one of our most available species. Hemlock is going to be with us for many generations.

Properly kiln-dried, and carefully manufactured by Weyerhaeuser, 4-Square Hemlock rates a preferred position in your building program. It has just about everything a customer could want in a softwood and can be used interchangeably with other multi-purpose softwood species.

Many experienced builders rate West Coast Hemlock excellent for framing, sheathing, siding, finish, moulding, flooring, stepping, cabinet work, paneling, ladder stock, food containers, cupboards, food lockers.

Acquaint your trade with West Coast Hemlock. Factual literature is available explaining the characteristics and uses of this abundant "ability" wood. Write for details.

PROPER PROCESSING OF HEMLOCK

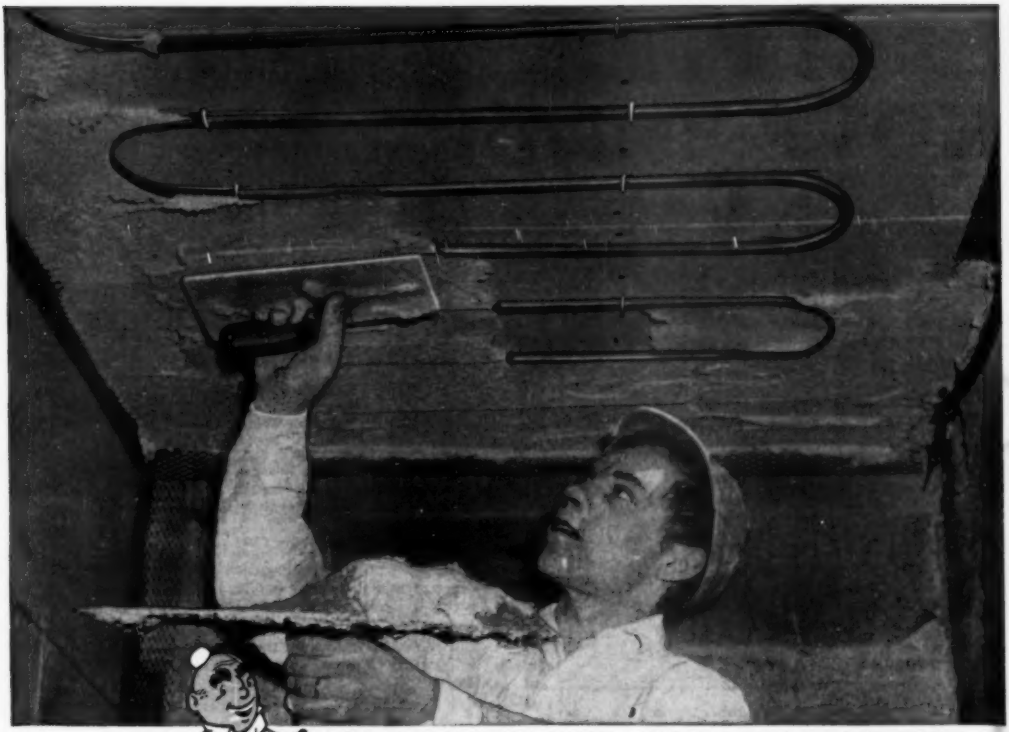
●Weyerhaeuser takes this abundant "ability" wood and through scientific logging, accurate sawing, controlled kiln-seasoning, precision surfacing, proper grading, careful handling and shipping, produces a wide range of 4-Square West Coast Hemlock lumber products.

Weyerhaeuser 4-Square

LUMBER AND SERVICES

WEYERHAEUSER SALES CO., ST. PAUL 1, MINN.

EXTEND YOUR USES FOR HEMLOCK...*THE ABUNDANT "ABILITY" WOOD*



Extra-strong, lightweight coils of Bundyweld Tubing are easily mounted onto ceilings. Lying flat and straight, coils are quickly plastered over, with small chance of damage from rough handling or accidental hammer blows.

Key to Low Cost

Bundyweld is the only tubing double-walled from a single strip, copper-brazed through 360° of wall contact. It's leak-proof, thinner walled, yet stronger. It transmits heat quickly, has high bursting strength. It saves on material costs and installation time.

Standard 20′ or 24′ lengths of Bundyweld are easily formed into coils in shop or on job site. Expanded ends (furnished when specified) are quickly soldered into leakproof union. Joined, lightweight coils are easily mounted onto ceiling, quickly plastered over.

Place your houses in top demand— with Bundyweld Ceiling Radiant Heating

Here's your chance to move your houses out in front of competition with Bundyweld Ceiling Radiant Heating.

The market's ready-made, fast-growing. And for good reason! Present users hail this clean, economical and convenient way to heat homes. They're sold on the idea of walls without dirt streaks, of warmth that's always even, of freedom from drafts, of lower fuel bills. And they're enthusiastically passing the word along to friends.

Thousands and thousands of prospective home owners are demanding more information. They're reading Bundy ads in *Better Homes & Gardens* and *American Home*. They're sending in a landslide of coupons requesting literature—and names of builders and architects handling Bundyweld Ceiling Radiant Heating. Many of these coupons come from prospects in your locality.

Send the coupon for details on Bundyweld Ceiling Radiant Heating. It may be the most important step you'll take in years.

Radiant Heating Division
BUNDY TUBING COMPANY
Detroit 14, Michigan

SEND FOR FREE LITERATURE!

LIKE HAVING THE SUN IN YOUR CEILING

Bundyweld
Ceiling Radiant Heating

Radiant Heating Division, Dept. AB-1052
Bundy Tubing Company, Detroit 14, Mich.

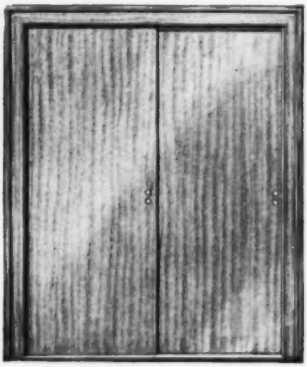
☐ Send free 20-page nontechnical brochure explaining Bundyweld Ceiling Radiant Heating.
☐ Send Bundy technical radiant heating pamphlet.

Name_____ Title_____
Company_____
Address_____
City_____ Zone____ State____

another **HOMASOTE FIRST**
—designed to reduce the cost of building

NOVA Roller Doors

for closets and passageways



and

Closet Fronts

• Highest in quality . . . simple and inexpensive to install . . . silently responding to fingertip control . . .

In the Nova Roller Doors, four years of intensive research, laboratory tests and in-use testing are incorporated. Every effort has been made to develop doors that are trouble-free—serviceable in every season and every climate.

Nova Roller Doors are light, strong, warp-resistant. Gone is the noisy, expensive, overhead hardware, always difficult to install. Two fibre discs revolving on pins act as guides at the top; the weight of the door is carried on two fibre rollers at the bottom. All hardware, except floor guides, is installed.

These are hollow core, flush doors—1-1/16" thick—regularly sold in the finest plywood and lumber — from birch and gum to imported mahogany.

The closet doors are available in 9 standard opening sizes and 5 standard heights. The passageway door comes assembled in its wall pocket, ready for installation—in five standard opening sizes. Each type comes complete in one carton and can be installed by one man in less than 30 minutes.

Nova Closet Fronts replace the old-style front of an existing closet—or make a new closet out of any suitable recess. The Nova Front is simply set into the rough opening, aligned, nailed into position. The Nova Roller Doors are instantly installed. Two types, each in four widths, are available.

Let us send you fully illustrated and detailed literature.

NOVA SALES CO., Dept. 738
Trenton 3, N. J.
Send details on NOVA DOORS and CLOSET FRONTS

Name.....
Address.....
City.....State.....
My lumber dealer is.....

NOVA SALES Co. TRENTON 3, N. J.

A wholly owned subsidiary of Homasote Company—manufacturers of the oldest and strongest insulating, building board, wood-textured and striated panels.

SEE OUR CATALOG IN SWEET'S

IN THE EARLY MORNING, after a few hours of heavy activity, a farm takes shape on the plain

From Desert to $75,000 Farm In 24 Hours

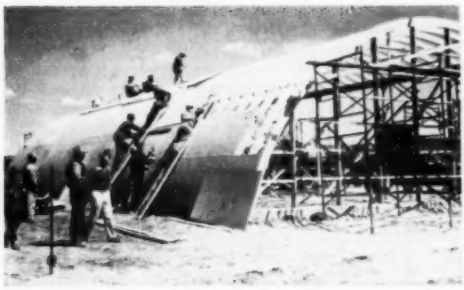
Heralding the opening of an eventual million acres of desert land in the Columbia River basin to irrigation water from Grand Coulee Dam, a 300-man crew at Moses Lake, Wash., converted 120 acres of brushland into a modern $75,000 farm, complete with home and farm buildings, in less than 24 hours.

The "Farm-in-a-Day" project was the climax of the 11-day Columbia Basin Water Festival which ended June 1. An outright gift to a World War II veteran and his family, the farm was made possible, from start to finish, by donations.

When the entire basin is developed under a U.S. Bureau of Reclamation seven-year program, it is estimated that it will have 13,000 farms producing $117,000,000 worth of crops annually. The population, now sparse, is expected to grow to 150,000.

The veteran to whom the farm was given is Donald D. Dunn, winner of a national contest sponsored by the Veterans of Foreign Wars to select the ex-serviceman most worthy to benefit from the project. Dunn had built

FOUR HOURS AFTER START of farm house, roofers were completing their job. In this picture are 33 men.



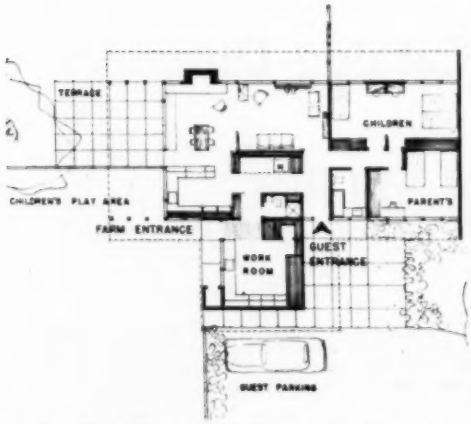
MACHINE SHED FACES EAST, with curved rear wall faced into prevailing westerly winds

a thriving farm in central Kansas, only to have most of his work destroyed by a recent flood.

Focal point in the "Farm-in-a-Day" activities was the seven-room, $19,000, contemporary style farm house. Representing the latest concepts in farm planning, it was designed by a committee of architects of the Washington State Chapter, A.I.A. A feature of the plan is a basic living core which can be built for between $7,000 and $9,000.

General coordination of the farm project was handled by staff members of the Western Retail Lumbermen's Association, headed by W. C. Bell, managing director.

(*Continued on page 280*)



FRONT VIEW AND FLOOR PLAN of $19,000 farm residence, especially designed by the committee from Washington State chapter, A.I.A.

another **HOMASOTE FIRST**
—designed to reduce the cost of building

Beauty of design cannot be an end in itself. A home must also have year 'round living comfort; that comfort must be built into the specifications.

Freedom from noise, freedom from drafts, freedom from mildew, complete protection from heat or cold—these are the features that make a home a joy to live in. For interior finish, use Homasote Big Sheets—up to 8′ x 14′. One piece covers the average wall or ceiling. No unnecessary joints; no cracks to repair; no falling plaster.

Use Homasote for exterior sheathing of walls, roofs and under the floors. You provide an envelope of protection—with top insulating value and maximum structural strength *in one material.*

Homasote is the oldest and strongest insulating-building board on the market. It is *permanently weatherproof, permanently crackproof*—proved by many years of service in all extremes from the Tropics to the Antarctic.

As indications of Homasote's strength...No corner bracing is required when Homasote is used. Racking tests prove Homasote sheathing ⅓ stronger than diagonal wood sheathing and eligible for FHA insured mortgages.

Let us send you fully illustrated and detailed literature.

HOMASOTE COMPANY
TRENTON 3, N. J.

SEE OUR CATALOG IN SWEET'S

Makers of the oldest and strongest insulating-building board on the market.

HOMASOTE COMPANY, Dept. 358
Trenton 3, N. J.
Send details on HOMASOTE.

Name.....
Address.....
City..... State.....
My lumber dealer is.....

PORTABLE TOOL EXPERT from Skilsaw, Inc., uses Skil drill with hacksaw attachment to make pocket cuts for outlet boxes

From Desert to Farm . . .

(Continued from page 279)

Construction was supervised by A. Kenneth Larsen, Continental Construction Co., Seattle. General consultants were H. E. Wichehs and Helen Noyes of Washington State College.

Craftsmen in all of the various trades contributed their services through local chapters of the A. F. of L. unions. Building materials, farm equipment, furnishings, livestock, groceries and many other items were donated by producers, distributors, merchants, and others in the area.

The farm home was not specially fabricated to meet any "stunt" requirements. The one-day deadline notwithstanding, construction was normal, except for extra crews and split-second timing on the various components of the job.

Credited with speeding erection time was the wide use of plywood and portable electric tools. Experts from Skilsaw, Inc., were on hand to aid workmen in proper use of the tools.

These schedules for some of the operations reveal that plans called for close supervision and good planning:

12:01 to 2:30 A.M.	Posts and outside framing
12:10 to 4 A.M.	Beams, headers and windows
12:45 to 9 A.M.	Cripples and stops
1:00 to 5 A.M.	Rafters, roof edge, nailing strips, crickets, fireplace cant strips
1:30 A.M. to 2 P.M..	Roof wiring, house wiring, heating and fixtures
2 A.M. to 2 P.M.	Rough-in plumbing, finish plumbing; tubs to be protected from injury
2 A.M. to 5 A.M.	70 sheets of ¾-inch roof sheathing
2:15 A.M. to 6:30 A.M.	Inside framing
4:00 A.M. to 2 P.M.	Fireplace—material and equipment
4:10 A.M. to 6 A.M.	Roof insulation
6:45 A.M. to Noon	Mahogany wall and interior plywood
6:50 A.M. to 9:00 A.M.	Outside wall sheathing, ⅜-inch plywood, 25 4x8 sheets
7:00 A.M. to 1:00 P.M.	1,000 square feet of 1x4 cedar siding

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with your greatly expanded AMERICAN BUILDER

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It can make money for you

5 Directory Sections:

1. **Alphabetical list of building products and equipment manufacturers.**
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3. **Names and addresses of Manufacturers.**
4. **List of Industry and allied Professional Trade Associations.**
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plus

26 PRODUCT REFERENCE SECTIONS that tell you Who Makes It, and How to Use It.

Now is a good time to browse through your Catalog-Directory. You'll find it the most complete and useful Buying and Selling Guide ever offered to Builders and Dealers. The more you know about its contents, the more valuable it will be to you.

AMERICAN BUILDER

79 W. MONROE ST. CHICAGO 3

Packaged units are here to stay!

HASKO

Ready Hung door unit is here to SAVE!

Now you can sell a door that can be hung using only a hammer, nails, and a level. A patented crating method brings the unit to you complete, with joints square and tight.

The door is hung in the frame on 2 butts. Lock, stop, trim — everything is factory made and assembled. With only 2 parts to handle, the carpenter merely slips them into the opening and nails the unit to the wall.

Slip first half into opening.

Check plumb, shim, and nail first half to wall.

Slide other half into opposite side and nail to wall.

These features make Hasko Ready Hung first choice across the nation —

1. Savings. The unit can be installed in twenty minutes or less. Completion time is speeded while costs are cut. Dollar savings multiply with every unit you install.
2. One package stocks the complete door and frame. One order fulfills all door hanging needs. One delivery gets all the pieces to the builder intact.
3. The doors are famous Hasko hollow-core, flush doors. Warp-resistant and beautifully made they insure complete customer satisfaction.

Write for catalog. Sold through established wholesalers.

HASKELITE MFG. CORP., Grand Rapids, Mich.

FASTER TO INSTALL

PLUGMOLD 2000 with SNAPICOIL by WIREMOLD

TIME-SAVING FEATURES

Installing multiple convenience outlets is a real "snap" with Plugmold 2000 and Snapicoil! You *snap* the receptacles into the cover and *snap* the cover into the base—a few simple snap-over fittings complete the job! Takes minutes instead of hours.

Write today for new, free Plugmold 2000 book!

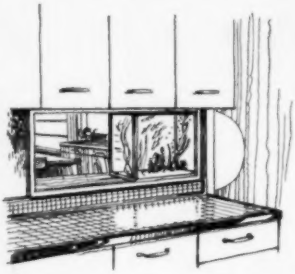
PLUGMOLD 2000

WIREMOLD'S *New* multi-outlet system

THE WIREMOLD COMPANY
Hartford 10, Connecticut

Illuminated Aquarium Gives Decorative Effect

A problem besetting builders and householders alike is what to use to occupy the rectangular space which usually exists between the kitchen and the dining alcove or laundry. The space, usually referred to as the "pass door," is not high enough to admit large objects, being usually



about 12 or 14 inches high between the cupboard space above and the kitchen counter top, yet is sufficiently wide to require an object to provide a partial obstruction.

One suggested method is to place a standard rectangular aquarium, containing a few aquatic plants and live goldfish or guppies in this space. Aquariums of this type will be found to keep clean, easy to reach for maintenance and feeding the fish, as well as being out of the ordinary reach of small children and house pets. By illuminating the aquarium with one, or at the most, two, horizontal fluorescent tubes located at the water level, the light diffused through the water gives an attractive decorative effect to the entire surrounding area.

"THAT WOMAN NEXT DOOR FASCINATES ME,--I'M DYING TO MEET HER."

EASIER TO INSTALL

PLUGMOLD 2000 with SNAPICOIL by WIREMOLD

CUTTING and FITTING reduced to a minimum

No "pre-engineering" when you install Plugmold 2000 multiple convenience outlets . . . every step you take gets the job done! . . . Plenty of knockouts for feeding and mounting in Plugmold 2000 base—no drilling! . . . You can feed in at any convenient point—no special fittings required! . . . Elbow fitting covers snap on and *overlap*—no precision cutting required!

Write today for new, free Plugmold 2000 book!

PLUGMOLD 2000

WIREMOLD'S *New* multi-outlet system

THE WIREMOLD COMPANY
Hartford 10, Connecticut

What ABC Means

By James G. Lyne
President and Publisher
Simmons-Boardman Publishing Corp.

MAYBE you've noticed the ABC and ABP monograms which appear regularly on our contents page. The ABC stands for Audit Bureau of Circulations and the ABP for Associated Business Publications. Both monograms signify adherence to high standards of integrity on the part of a publication which qualifies to display them.

Prior to 1914 there were no generally accepted standards for measuring a publication's circulation. A publisher could claim any figure that happened to occur to him and might seem attractive, and it was hard to prove otherwise. Manufacturers interested in advertising their products had no sure way of knowing what kind of people and how many of them were readers of any given paper. A group of publishers and advertising men, perceiving their mutual need for dependable facts and figures on circulation, formed a cooperative association known as the Audit Bureau of Circulations, of which *American Builder* and all other Simmons-Boardman publications are charter members.

Since that day, experienced auditors of the Bureau have made annual audits of the circulation records of all member publications—and their reports on who and how many people pay their good money to receive each paper regularly are available to all interested persons. Today there are 370 business publications which are members of ABC and, of this number, 124 are also members of ABP, in which membership is open only to those publications which are already members of ABC. There are hardly any of the big newspapers and magazines of general circulation that are not ABC members. In the industry press the ABC audit has a peculiar value, because it reveals not just how many subscribers a publication has, but what the business or occupation of these subscribers is.

There are many publications and other means of communication which are not eligible for membership in ABC or ABP—for instance, car cards, direct-mail literature, free publications, and so forth—which often serve a useful and legitimate purpose. Nobody would for a moment contend that the only good horse is the one for which the owner can produce a full pedigree. At the same time, though, the owner of the pedigreed animal has a right to feel some satisfaction in his ability, not merely to assert but to prove beyond cavil, the worth of his property.

An institution which builds up and polices product quality as ABC has done deserves well in reputation and public support from the community. In the publishing business, we're glad it was publishers and advertisers who thought up this device, and did the job so well that government was not tempted to take on the assignment.

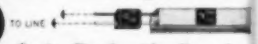
CHEAPER TO INSTALL

PLUGMOLD 2000 with SNAPICOIL by WIREMOLD

1 RACEWAY FOR 3 WIRING SERVICES

1

For the first time, ONE raceway that's designed to take all 3 wiring services — NEMA grounded,

2 

2-wire Duplex "hot", and 3-wire Duplex receptacles, *one side switched, one side "hot"* . . . cheaper, because only 1 raceway needs to be taken to the job!

3

. . . cheaper, too, because the pre-wired Snapicoil receptacles are readily intermixed or replaced by the skilled electrician . . . cheaper because cutting and fitting are reduced to a minimum.

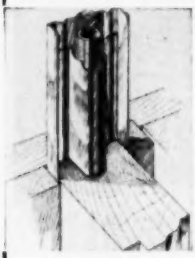
Write today for the new, free Plugmold 2000 book!

PLUGMOLD 2000

WIREMOLD'S *New* multi-outlet system

THE WIREMOLD COMPANY
Hartford 10, Connecticut

perfect balance!
fast, easy installation!
the new CENCO . .



- Wide variety of sizes
- Weather tight
- Enclosed springs
- Simplified framing

COMBINATION WEATHER-STRIP SASH BALANCE

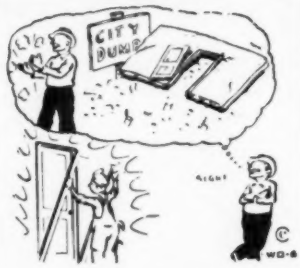
Here is the new Cenco sash balance with everything you need for fast easy installation. You get many standard sizes to choose from, and simplified framing to make your job easier—more profitable. This balance is weather tight and perfectly balanced with the correct weight spring for each size—giving long, trouble free operation. Write for complete data including sizes and prices. Immediate delivery!

CENTRAL METAL STRIP CO.
4343 No. Western Ave.—Chicago 18, Illinois
Complete line of weatherstrip materials and supplies

Construction Courses

Following is a list of universities and colleges that have installed four-year courses in light building construction and marketing:

Auburn Polytechnic Institute
Colorado A & M College
University of Denver
University of Florida
Georgia School of Technology
University of Idaho
University of Illinois
Iowa State College
Kansas State College
University of Kansas
University of Kentucky
Louisiana State University
Massachusetts Institute of Technology
Massachusetts State College
Michigan State College
Montana State College
University of Maine
University of Minnesota
New York State College of Forestry
University of New Hampshire
North Carolina State College
Oklahoma A & M College
Oregon State College
Rensselaer Polytechnic Institute
University of Utah
Virginia Polytechnic Institute
University of Wisconsin
University of Wyoming



Dump workmanship worries—READY HUNG DOORS have that "Mill-made" look.

ASK FOR
Ready Hung DOORS
THE NEW DOOR AND FRAME PACKAGED UNIT

READY HUNG DOOR CORP., DEPT. A
FORT WORTH, TEXAS

MOISTURE RESISTANCE

CUPRINOL®
WOOD PRESERVATIVE

"The Wood Preservative Plus"

Minimizes swelling and Shrinking of doors and floors

Reduces Grain Raising and Separation Checks in Plywood

Dries quickly and takes Paint or varnish perfectly

Non-toxic to handle for On-the-job Application

Stops Rot and Termites

Carried by Lumber Dealers

CUPRINOL Division, Darworth Inc.
56 Maple Street • Simsbury, Conn.

10 Day Trial *No Deposit*

WARREN-KNIGHT TRANSIT-LEVEL

This instrument is made for the Engineer or Contractor who knows that he can work more efficiently with up to date equipment.

This instrument gives you what you have always wanted in a low priced instrument—high power telescope—close focus—vertical arc with clamp and tangent—sensitive level—compass—plate level—protected circle—vernier reading to one minute—extra large shift—sturdy construction—U. S. Standard Thread—low maintenance costs.

SAVE TIME IN making layouts and in giving lines and grades.
SAVE MONEY by reducing labor costs.
For complete details write for new Bulletin F-210
Liberal allowance for your old instrument

Made also without compass and are at lower prices.

Transit-Level
No. 38-b **$275**

WARREN-KNIGHT CO.
136 N. 12th St. Philadelphia 7, Pa.

Glued-Laminated "Ameribeams" are Scoring Everywhere!

IMMEDIATE DELIVERY

AMERICAN *Roof* Truss

Est. 1922 1038 East 87th Chicago

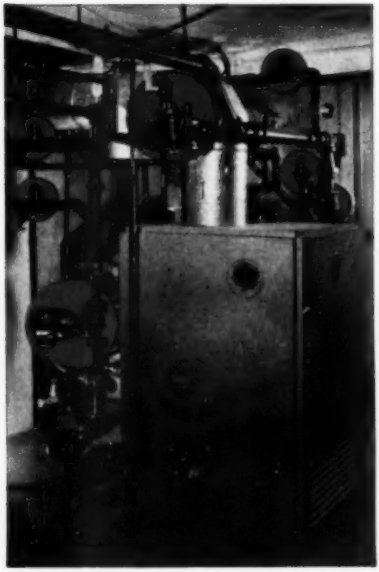
SNOW MELTING A *PLUS* VALUE OF

B & G *Hydro-Flo** Heating

● *The residence of E. E. Dohn, Syracuse Heating Supply, Inc., Syracuse, N.Y.*

● *Pipe coils for circulating hot water under driveway.*

● *Snow melts as fast as it falls on the heated driveway.*



Boiler hook-up in the Dohn residence.

Here's one more reason the B & G *Hydro-Flo* System is tops in modern heating. Hot water can be circulated by a B & G Booster Pump through pipe coils under driveways and sidewalks, melting snow as fast as it falls. Another back-breaking job eliminated . . . another strong selling point!

B & G *Hydro-Flo* Heating assures better, more economical *radiant* heating in buildings of every size and character. At every weather change, the system *automatically* varies the heat input, so that indoor temperature is uniformly comfortable. This close control of the heat supply obviously results in exceptional fuel economy.

Add to all this the advantages of a limitless supply of domestic hot water . . . 24 hours a day, summer and winter.

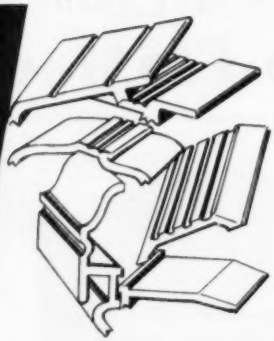
The photo at the left shows some of the B & G equipment used in the installation illustrated here. It includes B & G Booster Pumps, Flo Control Valves, ASME Relief Valve, Airtrol Tank and Boiler Fittings for eliminating air from the system and a Comfort Control System—a wind-compensating, indoor-outdoor temperature control.

BELL & GOSSETT
COMPANY
Dept. CR-11, Morton Grove, Ill.

Canadian License: S. A. Armstrong, Ltd., 1400 O'Connor Drive, Toronto, Canada

*Reg. U. S. Pat. Off.

EXTRUDED BRASS Thresholds ON MARKET AGAIN



QUANTITIES LIMITED
GET ORDERS IN NOW!

These brass specials are in addition to our aluminum alloy line. All catalog sizes and shapes of spring bronze weatherstrip now available.

SEND IN TODAY FOR YOUR COPY OF OUR CATALOG

ALLMETAL Weatherstrip Company

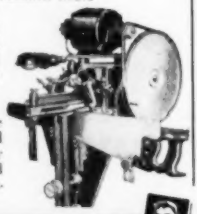
2243 N. Knox Avenue • Chicago 39, Illinois

Made $900 IN SPARE TIME

"I did very well last year with my Foley equipment, in my spare time. About $900 for me." —Leo H. Mix

Carpenters make up to $3 or $4 an hour in Spare time. With a Foley Automatic saw Filer you can file hand, band and circular saws better than the most expert hand filer. Cash business—no canvassing. No eyestrain. No experience needed.

FREE BOOK "MONEY MAKING FACTS"



shows just how you can start at home in spare time, with small investment, no overhead—and develop into a full-time repair shop. Send coupon today for this practical plan. No salesman will call.

Send Coupon for FREE BOOK

FOLEY MFG. CO., 1024-2 Foley Bldg. Minneapolis 18, Minn.

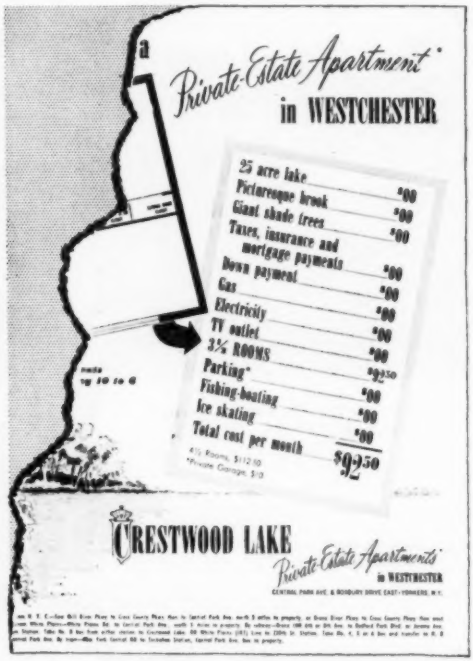
Send FREE BOOK—"Money Making Facts"

Name

Address

How Much Do You Give Away?

Maybe you give away a lot more than you think you do, and never tell the prospective buyer or tenant anything about it. When Peter J. McKenna, New York sales engineer, was retained to promote Westchester's Private



Estate Apartment, he asked the builder what he gave the buyer that the buyer never paid for. Nothing, answered the builder, but McKenna looked around and came up with the list in this compelling advertisement.

Before you write your next sales brochure or newspaper advertisement, take a good, long look first. You might be surprised at what you are able to tell your clients you are giving them absolutely free with their purchase.

Tourist Court Plan Book, 152 pages, 9 inches by 12 inches, Tourist Court Journal. $17.50.

Not once, but several times during the past year the *American Builder* has received resuests for information about the planning and building of tourist courts, or as they are frequently called, motels. In answer to those inquiries and as useful information for builders generally, we are glad to be able to recommend a well prepared volume entitled Tourist Court Plan Book, published by Tourist Court Journal of Temple, Texas.

By no means, however, is this work just a plan book. True, it contains 52 double-sized pages of tourist court block plans and renderings together with 15 pages of illustrated plan reference sheets, but it also gives the reader much more. Here are clearly written chapters on financing a tourist court, location for a tourist court, heating and cooling, plumbing, lighting, furnishing, landscaping, advertising, tourist court service stations and coffee rooms, tourist court operating averages and information on AAA inspection for listing in guides. All of this data may seem to be aside from the point as far as a builder is concerned, but then it is always helpful to know something about a client's business operation when considering a special project of this kind. The plan ideas alone are worth the price of the book if a building job of this sort is in the offing.

WOMEN buy homes...

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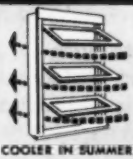

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How to Install Packaged Incinerators

The Incinerator Products Company of Detroit manufactures floor and built-in wall incinerators suitable for new houses, small professional offices and clinics. These drawings show a typical installation for a wall style incinerator.

The unit is placed in the wall at the chimney location, in the position shown in Figs. 1, 2, and 3. At least one course of block or brick is located above the intended

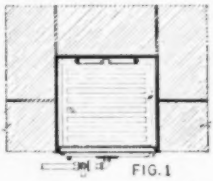


FIG. 1

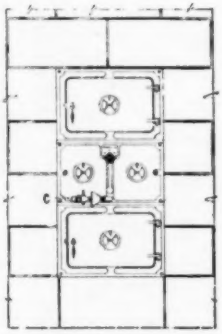


FIG. 2

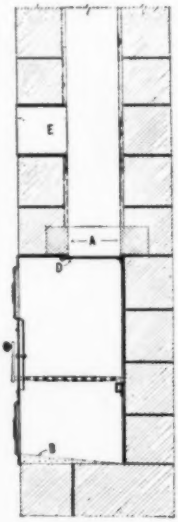


FIG. 3

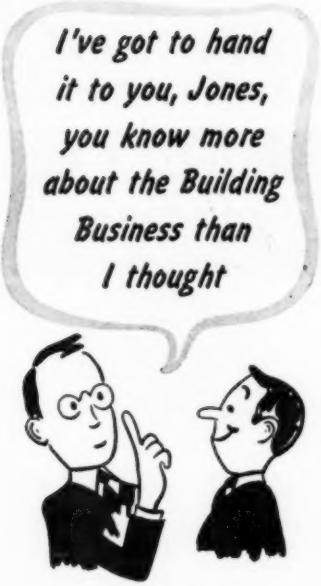
finish floor. Heating plant flue or separate flue location is used. Fireplace flue ash drop is never used. As in Fig. 3, flue tile is placed directly over the opening in the top of the incinerator. Firebrick is used as indicated at point "A" if necessary to avoid extra cutting. The block voids are filled and a cement or mortar ash pit floor is grouted in, as shown at point "B". The unit must be set so that there is a smoke-tight seal between the incinerator and the flue (point "A").

When masonry work has been completed, run a ½-inch gas line and connect it to valve (Fig. 2, point "C"). Before placing unit in service, turn screen clips at "D", Fig. 3, and remove screen. Then clean all mortar drippings and debris from the area at "A" and re-install screen. Point "E" is a typical location of furnace or water heater smoke pipe connection.

How to Price Materials Covered in Dealer Guide

"Pricing Building Materials for Profit," the latest chapter of the National Retail Lumber Dealers Association's Dealer Operating Guide is now being issued to members through their state and regional associations.

The new chapter on pricing is based on material prepared by John W. Dain of Dain Supply Co., Mahopac, N.Y. It covers constructive pricing, definitions of pricing terms, establishing mark-ups, evaluating competition, use of written price lists, and control of cash discounts.



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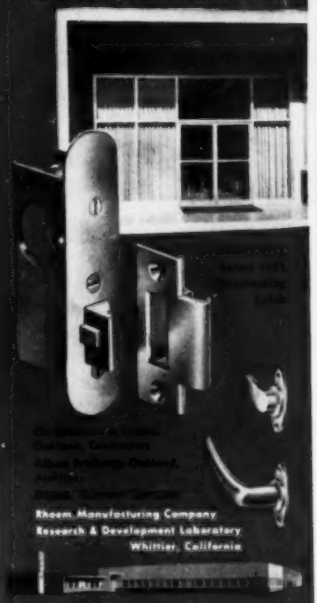

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Minimum backset is 7⅛" with depth of 2⅛". Backsets of 1", 1¼" and 1½" also available. Takes any standard 1⅛" diameter cylinder. The bolt is hardened, armored face plate and box strike. Handles shown are optional. This latch can be interchanged with Adams-Rite Series 970 or 980 Deadlocks.

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Discovers New Facts About Blister Failures in Plaster

A recent National Bureau of Standards investigation provides important new information on the problem of blister-type failures of plaster finish coats on walls and ceilings. Some years ago the Bureau

If you want to avoid blister-type failure in plaster finish coats, do not use regularly hydrated (normal) dolomitic lime

established that this type of failure resulted from the use of plaster made with regularly hydrated (type N—normal finishing) dolomitic lime.

The Bureau showed that these hydrated limes, at the time of applica-

(Continued on page 291)

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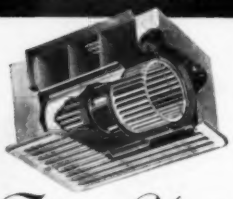

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PRICE OFFERS AN INDUCEMENT BUT QUALITY OFFERS A REASON

TRADE-WIND MOTORFANS, INC.

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(*Continued from page 290*)
tion of the plaster, usually contain a substantial percentage of unhydrated magnesia, which gradually takes up moisture and expands after the plaster is in place, causing the failures.

These limes are usually soaked over-night before use, and it has been thought by some that extended soaking would answer the problem. But the National Bureau of Standards has now demonstrated that longer-than-usual soaking is not a practical means of making a sound plaster from regularly hydrated dolomitic limes.

The Bureau worked with 18 regularly hydrated dolomitic limes, representative of those commercially available. Test results gave, for each lime, the increase in hydration and

The long specimen bar made with regularly hydrated dolomitic lime, was the same length as the others before it was heated for one hour at a steam pressure of 296 lb/in. This accelerated performance test caused unhydrated oxides present to combine with water and expand the bar. Similar hydration and expansion may occure gradually over a period of years in a plaster finish coat, until failure occurs

the decrease in residual expansion resulting from increased soaking time. The soaking time required to reduce the expansion to one per cent (the suggested specification limit) varied widely. In no case was the time less than three weeks, and several limes had not reached the one per cent limit even after 32 weeks.

These results made it clear that the customary overnight aging hydrates but little of the magnesia in a regularly hydrated dolomitic lime, and leaves the putty still potentially unsound.

The conclusion is that builders who wish to avoid white-coat plaster failures should not use regularly hydrated (normal) dolomitic lime in making plaster. Acceptable finishing limes—such as highly hydrated dolomitic lime (also known as spevial, autoclaved, or pressure-hydrated), plastic high-calcium hydrated lime, sound quick-lime, and ready-mixed quick-lime putty—are readily available commercially.

• ***Letters to the Editor** should be sent to 79 W. Monroe St., Chicago 3, Ill. Your comments, criticisms and suggestions are invited.*

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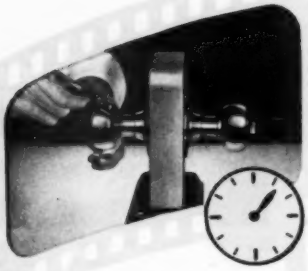

STEP ONE... After releasing the inside turn button, the hidden pin is depressed with a pointed instrument, unlocking knob from the lockset.

...provides

1. NEW PRECISION MOLD high tensil nylon cam cradles the turn button to give positive locking action to the lockset.

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better looking
-better engineered
to give greater security
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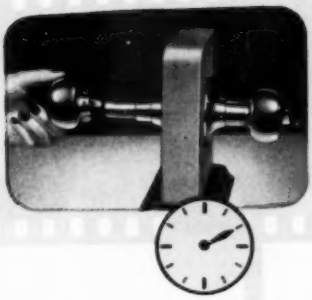

STEP TWO... Here is the knob assembly, containing the lock guide sleeve and the cylinder, being removed as a unit from the spindle.

STEP THREE... Now, the entire lock guide sleeve can be pushed out of the knob. See how easily these precision-made pieces come apart!

STEP FOUR... Now the cylinder, itself, slides out and the lock guide sleeve is ready to receive the new cylinder. All in 29 seconds or less!

6 other big improvements

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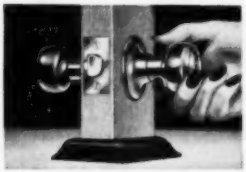
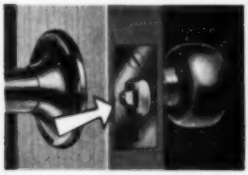


3. NEW CONTOUR GRIP is better looking and more roomy, more comfortable to hold. No scraping of knuckles here!

4. SHOCK-PROOF SPINDLE has special indexing to prevent jamming or binding of parts despite severest of blows applied to knob.



5. PRY-PROOF TRIGGER BOLT rides in a track in the large bolt... impossible to insert any instrument between them to force the lock.

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First to create a sectional, upward-acting garage door – The "OVERHEAD DOOR" – 1921

Extruded Tubular Aluminum Doors

COPYRIGHT, 1952, OVERHEAD DOOR CORPORATION

On December 4, 1921, the *first* sectional, upward-acting garage door was completed by the founders of Overhead Door Corporation. Since then we have devoted our entire time and expanding production facilities to the manufacture of doors that give *blue-ribbon performance* . . . always!

SPECIFY THE "OVERHEAD DOOR"

Home-owners will thank you for this *quality* door backed by Nation-Wide Sales-Installation-Service.

FREE PRINTS FOR FRAMING!

Write us if you would like an 11" x 17" print of the above pencil drawing by Ted Kautzky, acknowledged master in the field of pencil renderings.

THE "OVERHEAD DOOR" TRADE MARK

YOU CAN BE SURE IF IT BEARS THIS TRADE MARK

OVERHEAD DOOR CORPORATION
Hartford City, Indiana

MANUFACTURING DIVISIONS

Hillside, New Jersey
Nashua, New Hampshire
Cortland, New York
Lewistown, Pennsylvania
Dallas, Texas
Oklahoma City, Oklahoma
Portland, Oregon
Glendale, California

Our 51st Anniversary

Within the last year THOUSANDS OF SQUARE FEET OF FACTORY FLOOR SPACE have been added to our plant to keep pace with growing demands for National Hardware.

NATIONAL'S "BIG 4"...
"THE PEOPLE'S CHOICE"

Big 4 gets a vote of confidence from every customer because it's a vibrationless flexible hanger. Easily installed. See diagram which shows why it will not jump the track. Has non-binding, free-running roller bearings. Thousands of dozens of pairs in use in all sections of U. S. and Canada. It's one of the best.

A good way to check your hardware list for any job is to consult your National Dealers' Wall Chart. It shows the complete National Line.

National

MANUFACTURING COMPANY
STERLING • ILLINOIS

"BRACED" RAIL

Used with "Big 4" and National Hangers. Note how low brace diminishes load on the screws. This feature gives triple carrying strength. 1¼ x 3/16 inches. Made in 4-, 6-, 8-, 10- and 12-foot lengths. Brackets are 12 inches apart. Any flat-rail barn door hanger will run on it.

A NATIONAL HANGER FOR EVERY TYPE OF DOOR